

Original Correspondence.

WORKING COAL—"LONG WALL" v. "STALL AND PILLAR."

SIR,—Since Mr. Naysmith has been so candid as to admit that his practical experience has been derived under the guidance of some of the most experienced mining engineers of the day, I think it would be unfair to accuse him of want of candour in answering the questions put to him, otherwise I should have done so. His simple statement also serves to dispel my previous conviction of his connection with the sale of brattice cloth and air tubing, a conviction formed through his urgent recommendation of an extended use of these expensive and much-abused articles. I nevertheless should have treated Mr. Naysmith with that respect which is due from one opponent to another, even had my mind not been disabused of the idea that his acquaintance with coal mining was even something less than that of a pupil. My object is to give and receive instruction, otherwise I should not tax myself with additional labour at a period when every available moment of my time is occupied. It, therefore, matters little whether I have Mr. Naysmith for an opponent or one of his experienced guides, providing he will aim at the same object. Mr. Naysmith says "It is all a mistake for either Mr. Goodwin or anyone else to undertake to instruct how to work a coal field to which you are an entire stranger." I admit that to some extent it would be difficult to determine what would be the best method of working some seams of coal, even if the very best descriptions were given of them. But I think even Mr. Naysmith will admit that the difficulties cannot be very great in arriving at the conclusion that it is unwise to condemn any system before trying it. It is against this unwise course that I shall have a few words to say, in the shape of advice to Mr. Naysmith. My advice is, first satisfy yourself that that which you represent or understand to be a certain system is really what you believe or represent it to be. If you should fail to do so you are not only unable to judge of the system you speak of, but you are in great danger of lessening the force of your remarks upon other subjects that you happen to be acquainted with. If Mr. Naysmith had not furnished your readers with diagrams illustrative of what he calls the long wall system, some of his objections might not have been without weight; but since he has done so any arguments that he may employ against the long wall system when skillfully conducted must have no meaning, inasmuch as he does not represent the long wall system in his diagram, and affords other proof that he is not acquainted with that system of getting coal. Mr. Naysmith says it is evidently my favourite system. I flatter myself that I was explicit enough in stating that both systems possessed their advantages, and that it would be unwise to tack ourselves to any one system. Like many others, I was brought up to the pillar and stall system, and for many years believed in nothing else; but experience has shown me the fallacy of confining myself to any one system. From the very laconic description that Mr. Naysmith has given of the coal seams in question, I see no reason to think otherwise but that the long wall system might be successfully worked in the South Wales coal field. It would, no doubt, be requisite to exercise considerable perseverance that the prejudices of the workman should be overcome; but colliers, like most other classes, will even make prejudice yield to self-interest, providing the subject be fairly placed before them. Mr. Naysmith appears to be at a loss to know what part of his diagrams so puzzled me, and yet admits that they were so much reduced in the hands of the engraver that it would have been incorrect to have put any scale to them. My object in asking for a scale to the diagrams and for the pits to be put on was so that I could measure the distance the air would have to travel through the intricate windings shown upon the diagram, and compare what Mr. Naysmith deems the most perfect system of ventilation with something that I am vain enough to believe is still more perfect than Mr. Naysmith's perfection. Mr. Naysmith asks whether I have seen a colliery worked on the plan described by him as the pillar and stall system. In reply, I may remark that I have seen several, and will presently furnish him with some interesting facts of the last I saw worked upon this principle. First remarking that I should not have stood alone had I not been fortunate enough to have had some experience in this system; for one of the most practical and thoroughly experienced colliery managers that I am acquainted with contended, when I showed him Mr. Naysmith's diagrams, that it was not the pillar and stall system, but a combination of the long wall and pillar and stall. This person has had more than 40 years' experience in pillar and stall working. The last time I saw the system at work it was at a colliery that I have had occasion to visit very frequently during the last twelve months. At the time I began to visit the colliery the attention of the proprietors had been drawn to the fact that the proportion of round coal had continued to diminish from the time this system had been introduced. The resident manager went down with me when I was called upon to see if I could afford them any information; and during the time we were going through the workings I challenged him as being unable to show me which way the air was circulating by the deflection of the flame of a candle. He could not do so; yet there were more than 100 men that were compelled, by the force of circumstances, to earn their daily bread in that poisonous atmosphere, by the flickering light of a half extinguished Davy lamp. On enquiry, and examining the pay-book, I found that eleven day men were engaged in endeavouring to keep the wagon and air-roads good, but they were inadequate to the task. The owners of the colliery were startled by the report made by me, and at once took prompt measures to have the colliery put to rights. At the present time we have three day men in lieu of eleven day men; we have the cheerful light of a candle in lieu of the Davy lamp, and an ever-changing brisk current of air in lieu of a pestilential and life-destroying atmosphere, whilst we are raising an average proportion of 132 tons per week more of round coal than when Mr. Naysmith's so-called pillar and stall system was at work. We are no longer in danger of being blown up by the defect of the naturally delicate construction of the safety-lamp, nor by a workman incautiously taking his lamp top off, or secretly conveying a match into the mine, so that he may indulge in his favourite habit of smoking. These facts can be corroborated by the plans and the books, or by the workmen at the colliery referred to; and if anyone will be at the trouble to meet me by appointment it will be seen that I have not lent the slightest colouring to the statement, and have exercised care in not overstating a single fact. In the interest of humanity, I ask Mr. Naysmith not to continue or recommend his dangerous methods of getting coal, for so sure as such systems are practised shall we have a repetition of those dire calamities that have produced such untold misery, and inflicted such heavy pecuniary losses upon the owners of mines, despite all the precautionary measures that can be used. Space will not permit of any further remarks, or I should have pointed out many objections to the use of Mr. Naysmith's so-called pillar and stall system that I have not yet touched upon.

Dec. 16.

COLLIERY WORKING—"PILLAR AND STALL" SYSTEM.

SIR,—I observe that the pillar and stall, as I described it, has another opponent in the field, under the signature, "One of the Public." Now, I will endeavour to point out as clearly as possible the ideas put forward, and see how far they are practical. I may first state that the plan this "Shadow" shadows forth has been practised in many collieries I could name in South Wales, many of which I have had occasion to visit, and from what I have seen and know of the system, I am much surprised to find anyone advocating it in this valuable public journal. To begin, then, he says (quoting from my paper), "We are told that the first plan shows a system of ventilation of the most perfect description." This I maintain; but what says our author? "Anyone acquainted with the subject knows that it is no such thing." By this term "anyone," I suppose he means himself, as he is either anyone, anything, or nothing, as he stands at present. He then makes the following observations:—"By the system here laid down, let us suppose any one of the stall-doors to be left open by neglect, the result is that the workings or stalls beyond that point are without a current of air." My answer is that no door in a well-managed colliery can be left open by neglect; doors properly hung, so as to close of themselves, cannot be left open by neglect; but would not this same argument hold good if one of the doors he proposes to put up should be left open? He then goes on to say, "Now, the remedy is simple: by making a communication between the second and third heading, the current of air will always be steady and permanent, and every door doubled by having a door at the top and bottom of the heading—one door above the first cross-hole, and one below the farthest cross-hole." I will now try and point out how far this simple remedy is practicable: in the first place, we are to have a communication between the tops of the second and third headings. Now, I must ask Mr. Anyone how this communication is to be made, as on reference to my diagram it will be seen that the third heading is not so far advanced as the second; but if it were possible to have a communication there, would it be better to course the air as he describes—

turn the air into the first stall in the second heading on to the "goaf," and sweep out all gas making there, afterwards course it up through the stalls (quite the reverse of what I show) through a communication to be made between that and the third heading, then down through that set of stalls, and, I suppose, up the next heading, and thus all round. Is this the act of "a friend of humanity," to drive explosive gas, the poor colliers' most dangerous enemy, into the midst and through and amongst the whole of them? But why did not this gentleman propose having a communication between the first and second headings (which must necessarily be, to carry out his ideas), and carry the air over the "goaf," then down the stalls in the second heading, up the third, and so on through the whole of the workings, and finish his system? I can vouch for the accuracy of his next remark, which is,—"The system which I have shown is nothing new." My dear man, it is as old as coal mining; but as to its being practised in all well-conducted collieries—please name one! Again, quoting from my paper, he says,—"We are told to put in air-crossings strong enough to resist the force of an explosion;" to this he puts the question, "Who ever heard of such a thing?" I might reply in his own phraseology, and say "anyone acquainted with the subject in question;" then, of course, he might say immediately that I mean to call him Nobody, as he never heard of it. Be it so; as it is certainly intended by all practical mining engineers that air-crossings should be strong enough to resist the force of an explosion. He then (unwittingly I suppose) puts the question, "Why does he want air-crossings so strong?" I will pass over the "blow up," and go on to his other remarks, wherein he says, "As a friend of humanity, I entreat him (meaning me) to adopt safer and wiser plans than what he suggests. If he should object to the system I have given in any respect, I shall be most happy to give the outlines of another arrangement." Now, I object to this system in every respect, and if I am to have another pointed out, I should prefer a "younger one" next time. He then goes on to say, "The other systems in reference to working coal and ventilation I have not commented on here, are equally as fallacious in principle compared with the one I have remarked upon." This is pitched in a very high key, coming, as it does, from Nobody; but as he only shows off the advantages of the system shown as the pillar and stall in my diagrams, by putting the questions he has, I commend him for concealing his name, as there would certainly no credit accrue to it. After such an argument in favour of the "old worn-out" system of carrying the air in one continuous current, this is Mr. Shepherd's theory—he says, "I know from experience it is impossible to ventilate a colliery properly when the current of air is split into so many channels at the same time." I should like to undecide all such poor benighted creatures, and show them through a colliery worked and ventilated on this system.

Dec. 16.

COAL WORKING—"LONG WALL" v. "STALL AND PILLAR."

SIR,—My paper, published in the Journal of Nov. 29, seems to be taken to pieces, and contorted in all shapes and forms, to answer the purposes of different parties. Mr. Shepherd, for instance, supposes the shaded parts on the sides of the "gate-roads" represent coal left to support the roof. Now, how any rational being can look at my diagram of the long wall, and suppose the shaded parts to represent coal left, I am puzzled to know; but if Mr. Shepherd will trouble himself to look at the reference to the diagrams, he will there find it stated that the shaded parts represent "gob-walls," and not coal left. But this is not the only misrepresentation made by this gentleman; he continually misrepresents my remarks, and I, therefore, wish parties who may be interested in these papers to always refer to the originals when any quotations are made. It must not be understood that I say Mr. Shepherd wilfully misrepresents my remarks; but I believe (with others) that he knows nothing of the subject in question (at least as far as the stall and pillar is concerned), and thus one misrepresentation after another unwittingly escapes him. He made three statements last week which I might show in another light, but it is useless. I, therefore, leave Mr. Shepherd until he can comply with my conditions of last week. I am glad to see that Mr. Goodwin corrects his misquotations.

Aberystwith, Dec. 26.

J. NAYSMTIH.

COAL WORKING—"LONG WALL" v. "STALL AND PILLAR."

SIR,—One parting word with Mr. Naysmith. I beg respectfully to inform him I have no ambition whatever to be considered the champion of the long wall system; I am not so vain, but am simply its humble advocate. I saw a great national defect in the working of our mineral wealth, and I brought that defect prominently before those interested. For Mr. Naysmith personally I entertain the greatest possible respect, and I must say he has done his best to defend his system, but in doing so he has had to bear the sins of a system, not his own; but I trust, now he sees these defects in the true light, he will be the first to wipe away this stain from the mining engineers of England, and I can assure him he will have my best wishes for his success.

With reference to Mr. Goodwin's letter, if I had misquoted his observations I should have much regretted it, and offered every possible apology for so doing, but I do not find I have done this, as here are his own words. In describing the three-quarter seam, he states—"This seam is somewhat difficult to hole in." Now, he evidently put this forward as a difficulty, and as such I commented on this supposed difficulty without misquotation in any way. As to the other part of his letter, he states he has seen a keen, shrewd Shropshire man fail in introducing the long wall system elsewhere. Well, I have seen what we have termed a keen, shrewd long wall man fail at his work in Shropshire, and I have seen another man, not much regarded for either his keenness nor yet his shrewdness, take his place, and carry on the same work, without knowing he had a difficulty to contend against. Perhaps this is an answer to his question. In a word, I was surprised to find an advocate of the long wall represent such frivolous things as his difficulties; in fact, his letter altogether strongly impressed me with the idea that, although he put forward the *real*, he had a plentiful supply of the mock turtle in reserve when a difficulty like the holing occurred.

26, Thornorton-street, E.C.

GEORGE SHEPHERD, C. & M.E.

THE EDMUND'S MAIN COLLIERY ACCIDENT.

SIR,—There has been another of those fearful accidents in our neighbourhood during this week at the Edmund's Main Colliery—upwards of fifty killed by the explosion, and four others who risked and lost their lives in trying to save some of the sufferers. Now, my object in writing to you is to call the attention of colliery owners, inspectors, &c., to what I think would be of great use in cases like this at Edmund's Main. I would suggest that each colliery or pit should have provided what might be called "an underground diving helmet," similar to those used by divers, but less costly; this might be connected with a force-pump, or, perhaps, a pair of good bellows might answer the purpose, by a flexible tube supported by light carriages on wheels, or in some other way that would suggest itself on trial; the pump or bellows might be placed at the bottom of the shaft nearest the men wanting help. One pipe would be sufficient, with a valve opening outwardly, to allow the escape of the air that has been respired. Sufficient signals might be made, with two or three small bells of different tones, for anything that might be wanted. Something should be done to make the noble men's lives more secure, who so daringly and humanely risk their existence in the cause of humanity. If this suggestion should lead to any practical good I shall feel glad.

Grimesthorpe, near Sheffield.

J. WILKINSON.

PEAT AS A SMELTING FUEL.

SIR,—Although I am quite as desirous as Mr. Austin to promote industrial progress, and to aid the inventor of anything really good and useful in obtaining a remuneration for his ingenuity, I am compelled to observe that Mr. Austin's letter contains no answer to Dr. Paul's assertions. The question as to whether the process of Mr. Buckland can succeed in a commercial point of view has been so fully discussed in the *Mining Journal*, that it might be thought further points could not be raised. So far, however, from this being the case, I find that every week presents fresh difficulties to my mind, and almost leads me to fear that the discussion would be as the treatment of the fuel has always hitherto proved to be.

When Mr. Buckland's process was first described in the letters of "Publicus," I took some part in a discussion, but owing to Mr. Buckland undertaking to do for 2d. what had always cost me from 4s. to 5s., our calculations, of course, did not agree. "Publicus" started with the assertion that he simply washed out the decomposed portion of the peat, and considered the fibres as refuse, his opinion being that it was the fibres which prevented the consolidation of the peat. Rumour says that he has now discovered his error, and chops at least a portion of the fibre into the mass, which, if true, changes the character of the invention—if not, invalidates its patentability. I maintain that if the peat be treated according to Mr. Buckland's invention it will require on an average 10 tons of

peat from the bog to give 1 ton of washed peat ready for the brick machine—unless, indeed, the weight of the additional water which the washing process puts into the peat be taken into account. If the fibres be cut up and added as now stated, it would manifestly require less bog peat for a given quantity of washed peat, but there would still be the water question.

I recollect that Messrs. Gwynne reduced the entire mass of peat to powder in the same way, or nearly the same way, as Mr. Buckland is now supposed to do, but they added no water, their object being to dry and not to wet the peat. The dried powder was then compressed by hydraulic machinery, and a peat resulted which certainly stood the blast extremely well. Now, as the powder is very easily dried by the heat obtainable from the coarser, stemmy, upper peat, all that is required is consolidation, and I believe that if a small portion of the oily products of peat were used to pug the powder with, and the hydraulic pressure applied to the pugged mass, a really good peat fuel would be obtained, more cheaply than by any other means, though I will not say at a price to make it commercially remunerative. The expressed oily matter could, of course, be re-used. Perhaps Mr. Austin will give his opinion upon this proposition at the same time as he replies to Dr. Paul's assertions. If he will also state whether I am correct in asserting that sulphur is almost as invariably found in peat as in coal, he will confer additional obligation. I have always maintained that there are certain isolated masses of peat, especially mountain peat, which could be profitably treated either for fuel or chemical products, but it has hitherto proved that the masses are so small and few that they are not worth looking for.

R. R.

IRON-MAKING—"BLOOMING."

SIR,—For some time past accounts have been given in the Journal of Mr. Charles While's patent blooming-mill, in course of erection at the Dowlais Ironworks, and in last week's Journal the result of its first trial, which is represented as "very successful." This may or may not be correct; but my object in drawing attention to the matter is to inform Mr. Charles While that, if he lays claim to the priority of the invention of rolling iron by means of horizontal and vertical rolls combined, he takes to himself what is not really his own. Patent after patent has been granted for precisely the same mechanical appliances, and if Mr. While will take the trouble to look over the back numbers of the *Mining Journal*, *Engineer*, and other scientific Journals, he will find drawings, with descriptions, of the very apparatus he takes credit for.

Merthyr, Dec. 17.

TUBAL CAIN.

ORE-DRESSING MACHINERY.

SIR,—In a letter on Ore-Dressing Machinery, in the Journal of Nov. 29, "One present at the Experiments" made at the Exhibition with Mr. John Hunt's patent jigging machine, is somewhat incorrect in his statement of the opinion which I expressed on that occasion. I, therefore, take the liberty of offering a few remarks on the subject. As far as positive results are concerned, I agree that the question can only be settled by experiments on a larger scale. I consider the continuous current in Hunt's jigging machine an improvement on the hydraulic jigging hatch in use on the Continent since the last fifteen years or so, but it is one of the importance of which should not be over-rated. I think it calculated to accelerate in some degree the process of jigging, the more continuous suspensions of the stuff (caused by the constant upward and forward current of water) assisting the separation of the rich particles from the poor. Beyond this, I do not see much difference between the two systems. The backward current of water in the German machine cannot disturb the particles of stuff in the position they have attained by their respective gravity; and I doubt whether any difference will be found in the richness of the hutchwork, as the downward current of water, which might be said to draw with it particles of the waste, must also close the apertures in the sieve by the particles lying immediately upon it. From practical experience of the German hydraulic jigging hatch, I have no hesitation in stating that it will dress the ore quite as thoroughly, though rather more slowly, than Hunt's jigging machine. There is another point in the latter which is undoubtedly of far greater importance,—I mean the discharge of the waste by means of a forward current of water. Whether it is capable of doing this without loss in mineral (and I doubt it), is a question which the experiments referred to were quite inadequate to show, and which could only be decided by a course of the most careful experiments upon larger quantities of stuff of various richness. If successful in this respect, Hunt's jigging machine would have a great advantage over the German hydraulic jigging hatch, as it would allow of a much larger quantity of stuff being treated in an equal length of time. I consider the principle adapted for the discharge of waste in a somewhat similar machine, constructed by Mr. E. Edwards, which has, I am told, been adopted at the Minera Mines, and which was likewise exhibited in Class I. at the Exhibition, better calculated to answer that purpose,—the waste in this case being discharged by means of scrapers, set in motion by the machine.—Dec. 17.

E. V. LINDOS.

MINING IN CANADA EAST.

SIR,—The mineral range of this province embraces a tract of country extending in a north-east and south-west direction, about 40 to 50 miles wide; and taking Quebec and Lake Champlain as a central line of its bearing, you have a general outline of this mineral region. Its geological character, like most other metalliferous formations, is variously composed, and is set down by those of the profession as belonging to the Metamorphic and Silurian series, the base of which is an argillaceous slate, and not very dissimilar to those in the county of Wicklow, Ireland, and in many parts of Cornwall. Beds of limestone are occasionally found; quartzose schist, chlorite or peach, talcose schist, and slates, having a nacreous or pearly lustre, like that of talcose slate and mica disseminated, also abound. Numerous veins of white quartz, bearing bunches of chlorite, ilmenite, iron and copper pyrites, occur between the strata, and are called imbedded veins. Some of these quartz veins are charged with considerable quantities of copper ores, in the form of green carbonates, red oxide, ferruginous black oxide, copper pyrites, grey, purple, and bell-metal copper ores. Brown spar, or carbonate of iron, also occurs with these ores in the quartz veins. The rock mostly forms regular strata, is highly inclined, and dips to the north-west, at angles varying from 45° to 60°, and coursing for the most part with the formation.

Several copper mines have been opened in this region, among which the celebrated ACTON MINE holds a prominent position. This mine has been opened some 80 ft. deep, and about 800 ft. in length. The lode is mostly composed of limestone of the dolomite species, and copper ores in large proportions; it is about 3 fms. wide on an average, and dips to the north-west, on an angle of about 50°, while its bearing is with that of the formation—north-east and south-west. The foot-wall rock consists of a light coloured slate and layers of grey trap. The hanging-wall is a black shale, in which thin veins of yellow copper are found, and would well pay for working, independent of the main lode. Hitherto this part of the mine has been neglected, as the main lode is most productive, and produces richer quality ores, consisting of horseflesh, peacock, and bell-metal colours, yielding by a chemical analysis made by Dr. Jackson, of Boston, in August last, from 50 to 75 per cent. of copper. By Dr. Jackson's report he shows that the proceeds of the mine in less than three years after it was first opened amounts to \$489,600, and that during the month of July last (the month previous to his inspection) 250 men and boys were employed, and 297 tons of 14 per cent. ores were raised and marketed, at a cost of \$6500. The proceeds from this ore were \$16,632, giving a balance of profits for the month of July of \$10,132. And further adds—"It is not improbable that by opening the mine more fully, and putting a larger force upon it, the monthly average of profits might be raised considerably above the sum given for July." One-half of this wonderful mine has lately passed into new hands—parties in Boston and New York—for the cash payment of \$250,000, and I am given to understand that this stock has already doubled itself in the Boston market.

Next in importance to the Acton is the LEEDS MINE, in Megantic county, some 40 miles more or less south-west of Quebec, the property of the English and Canadian Mining Company. This mine has been a much longer time at work than the Acton, and, in fact, may be regarded as the pioneer of mines in this region; it is situated in the centre of the mineral range above described, and I am informed has been opened very extensively. I have not yet visited this mine, but purpose doing so before long. A friend of mine who has lately visited there gives a splendid account of the concern, and I consider his testimony may be regarded without controversy, as his object was to gain information for his own guidance in other concerns. He says the mine has been worked for several years, and laid open extensively at different points; that several bunches of copper ores have been discovered in what are called lenticular veins; that most of these veins, although very rich at times, give out at a feather edge, and are not always continuous. But of late a new feature altogether has presented

itself at this mine, by the discovery of an interstratified bed, bearing rich copper ores for several feet in thickness, mostly disseminated, and produces on an average for the whole thickness of the bed about 3½ per cent. of rich quality ore. That as they proceed in depth it also increases in quality, and has been opened upon at different points, in all of which the same characteristics are observable, and by pulverising and washing the ore is capable of being dressed up to a high percentage. My friend estimates, from the extent on which this interstratified bed has been opened, that there is an amount of copper discovered sufficient to give a net profit of \$400,000, after deducting mining, dressing, transportation, and marketing expenses; to say nothing of what copper may yet be mined below the deepest point yet opened, which is only 30 fms. from surface. Most certainly this is a very important discovery for those interested, and throws a flood of light upon mining operations throughout the region, more especially in the Megantic district.

In the same county, in Halifax township, about 20 miles south-west of Leeds Mine, some rich bunches of copper ores have lately been discovered, and mining operations commenced by parties in Boston. These trials are yet in their infancy, but, judging from the indications at large, they have all the probability of success. There are several other mines in this region, most of them recently started with good prospects. For the present I forbear to trespass further on the columns of your esteemed Journal, but will give some further information in my next communication. J. Buzzo.

Halifax, Megantic County, Canada East, Nov. 24.

STAMP DUTY ON TRANSFERS OF SHARES.

SIR,—In the Journal of December 6, among Notices to Correspondents, I observe it stated that "transfers of mining shares require a 6d. Inland Revenue stamp," but on referring to 13 and 14 Vict., cap. 97, it appears to me that the stamp would be the same on sale or transfer as *ad valorem* duty on conveyances. Will you have the goodness to answer the following queries in your next Journal:—

1. I am a shareholder in a limited company, and wish to transfer shares to the value of 350*l.*—shall I require a 1*l.* 15*s.* stamp, or will the form given in the Act, put upon a 6*d.* stamp, be sufficient and equally legal and binding?
2. In case this be so, in what Act is the change, authorising this departure from the usual stamp duties, to be found?
3. In another place it is stated that scrip shares must be upon a 1*d.* stamp. What is the strict definition of scrip share, and is it imperative that all share certificates of a joint-stock company should be upon a 1*d.* stamp?—Whitby, Dec. 16.

ANSWERS.

1. The stamp duty on the transfer of a share in a limited company (not being a cost-book company) is governed by stat. 13 and 14 Vict., cap. 97, according to the amount of the purchase-money. If 350*l.* be the purchase-money, then 1*l.* 15*s.* is the proper stamp; but if the purchase-money be more or less, then the amount of the stamp duty should be more or less, according to the scale set forth in the above Act, under title *Conveyances*. A 6*d.* stamp is, therefore, an improper stamp.

But if the mine be a cost-book mine, the transfer can be effected by a simple notice to the purser, requesting him to register in the cost-book the purchaser as owner of the shares, and such notice requires a 6*d.* stamp, and nothing more. Such 6*d.* stamp applies to cost-book mining companies only.

2. The cost-book stamp of 6*d.* is ordained by statute 23 Vict., cap. 15.

3. By the statute 16 and 17 Vict., cap. 63, sec. 8, a scrip certificate, or any document denoting the right to any share in a joint-stock or other company, or proposed company, where such right is transferable by the delivery of such certificate, or otherwise than by deed, must bear a 1*d.* stamp.

A scrip share is one which passes by mere delivery of the certificate. An ordinary share certificate—that is, one that does not pass the share or shares by delivery—does not require a stamp, as it is a mere admission by the company that the holder is entitled to the share or shares mentioned therein, the instrument of transfer being the conveyance and his title.

T. T.

THE CARADON DISTRICT.

SIR,—An article appeared in the "Mining and Smelting Magazine" for December, 1862, referring to the character of the mines in the Caradon district, their market value, probable continuance in depth, &c. With the former we have nothing to do; but think it necessary, in justice to the adventurers of this mine particularly, and for the information of all those interested in the mines of the locality, to offer a few remarks on the "secondary" and "primitive" granites are spoken of, and the latter called an unproductive rock. As to the granite of the Caradon Hill, we find no difference of character. Pieces taken from the north, middle, or south part of this set present the same appearance, and would, therefore, we apprehend, puzzle the geologist to determine which is primitive or secondary. But all this is really of no consequence whatever; facts are worth a thousand theories, especially when the pockets and interests of adventurers are concerned. And now, what are the facts as regards the working of this mine in depth? We are now in the heart of the hill, and on one of our north lodes, looking better than for many years past, and in what may be termed "primitive granite." For some time we have had a lode in this part of the mine producing the following results:—In the 40 fm. level, 5 tons per fm.; in the 50, 6 tons; in the 100, 8 tons; and in our deepest level, the 160, it is yielding 7 tons per fm. We, therefore, do not for a moment doubt having a deep and lasting course of ore in the primitive granite, and also venture to believe the foregoing is strong testimony in disproof of the views put forward by the writer of the article referred to. The measurements are under audit; add to the above 30 fathoms, and we have a total depth from surface of 190 fathoms. We believe it most desirable these particulars should be before the public. It is not our practice to offer opinions in the *Mining Journal*, nor should we venture to do so now, but that we see the whole district may be most seriously affected by the article in question, and which it will be seen has really no foundation in fact. Probably had the writer been aware of the foregoing particulars, he would have hesitated in drawing his conclusions so hastily. THE AGENTS OF SOUTH CARADON.

South Caradon Mine, Liskeard, Dec. 17.

GOLD IN WALES.

SIR,—Your correspondent, "A Practical Miner," has been misinformed with regard to the recent trials at the Cambrian Reduction Works. He states that "three or four bunches of visible gold were also broken at the Cambrian Mine, which went under Mr. Hopkins's treatment, as well as an immense quantity of the bulk of the gold lode, but it is to be feared that the result of the trial will not answer to his reports at the commencement of his operations."

I believe lumps of quartz, with visible gold, have been formerly discovered in, and broken from time to time from, one of the veins in the Cambrian property; but no such product was seen, much less received, at the reduction works during the experiments referred to. No rich minerals were broken nor applied for until the works were in complete order, and the boys well trained to carry on the process; hence the reason why the poor stuff lying on the surface, containing less than 1 dwt. of gold per ton, was treated, and not necessarily with the expectation of obtaining beneficial results. The rich parts of the mine will, doubtless, be broken and reduced to advantage as soon as the mine agent has had time to open the lodes and arrange his plans of working properly and economically. I have made no reports on any of the gold mines of Dolgelly, and, as regards the Cambrian, my opinions were not required, as the company had engaged able practical men to report on the merit of their properties, and also placed the mines under the sole management of an experienced gold miner—Capt. Martin.

My business at the Cambrian was simply to introduce the best system of extraction, and nothing more; and I am happy to state that this object has been satisfactorily established, and I would unhesitatingly guarantee to reduce auriferous rocks and minerals at a cost not exceeding 3*s.* per ton, provided it be done at the rate of (say) 500 tons per week, and also extract above two-thirds of the contents, provided the raw materials contained, by assay, on an average about 15 dwts. of fine gold per ton; therefore, I have every reason to be satisfied at what I undertook to perform, and I have no doubt but that the directors and their agents will attend to what is required to do justice to the properties of the company, so as to ensure a successful issue.

I hope your correspondent will be better informed in his next communi-

cation, and not cast unjust reflections on the management and the proceedings of his neighbours.—Maida Hill, Dec. 17. EVAN HOPKINS.

THE GOLD COMPANIES.

SIR,—Your correspondent, "Inquirer," has put forward a very inviolable task for a correspondent to take upon himself, yet I will do my best to give him some information on the matter, and must leave it to him to form his own opinion which is the best to invest in. To enumerate all the mines in the Dolgelly gold district would take up more space in your valuable columns than you could afford to give me. In the first place, I will mention the Cwmbrian Mine. This mine will be a success I think there can be little doubt, when we take into consideration the results obtained from crushing 100 tons of stuff from all parts of the mine. This mine is worked by a private company, as, indeed, most of the Welsh gold mines are, while as many are worked by private individuals. I will, therefore, pass by the Prince of Wales (equally as rich as the Clogau), Berthelward, Garthgill, and many others, and direct my attention to what may be called the public companies—those brought out and advertised in London—the Cambrian, Dolgelly, East Clogau, St. David's, Sovereign, and the one before the public, the East Cambrian. The Cwmbrian, no doubt, bears every probability of success. Fine rich specimens of visible gold are often found, while the best available talent has been engaged to conduct the operations. Good however as the property is, I cannot see why, before any returns are made, the shares should stand at the very high premium they do; indeed, at one time the market price of the mine was equal to 150,000*l.*, a high sum when we reflect that the mine has only been working three months, and it must necessarily be a long time before adequate returns can be obtained to realise a good percentage on such an amount of capital. I will now touch on the Dolgelly mine, a mine which has yielded some of the richest specimens in Wales, and it is an important fact that in this mine the gold is chiefly found in quartz, unassociated with any other metal or with sulphur, which will render the extraction a comparatively easy matter. I think this mine will pay, but shares are difficult to be obtained, and are generally held privately. I will now mention the East Clogau. I believe this mine has a continuation of the St. David's lode, after passing through Garthgill, but whether it will prove auriferous remains to be seen. Visible gold has been reported to have been recently found in it, still I expected it would have been found before. Of the St. David's I know but little, and, therefore, it would be worse than useless my offering an opinion on it. I now come to the Sovereign, which is an enormous set, and with proper management will make returns, the Royal lode of the Prince of Wales passing for upwards of 100 fms. through the north-west portion of the set, and from its breadth will supply a large quantity of quartz. I now come to the latest mine placed before the public. Before describing the property I would recommend directors of intending Welsh gold companies to follow the example of the directors of this company—to appoint one or two of their number, unknown to anyone, to go down and inspect the property, taking away samples of the lodes tuff, picked off by themselves promiscuously, for assay; and I would suggest that such samples should never be let out of their possession, but be taken by them to the assayers, allowing no one to know that such assay is being made. The public can only rely on the directors, and it behooves them to thoroughly investigate a gold property before becoming connected with it. The cautiousness of the directors of the EAST CAMBRIAN, coupled with their high respectability, leaves no doubt that the necessary capital will be subscribed. The mine is a very fine property, being situated between the Prince of Wales and the Cambrian Mines, having several of their lodes. I have been told by the miners that when working one of the lodes for lead they constantly discovered visible gold. Having described some of the principal mines, I must leave "Inquirer" to deduce his own conclusions, having endeavoured to place a few leading features before his notice. Dolgelly, Dec. 15.

CADER IDRIS.

EVILS CONNECTED WITH MINING.

SIR,—That mining, as a whole, is a profitable pursuit those who are acquainted with its statistics can demonstrate. But that there are many evils connected with this pursuit cannot be denied. One of the evils meets the adventurer at his first step—the enormous charge for his title to possession,—in other words, for the mining lease, which is usually granted for a term of 21 years, and contains such covenants as no miner, I suppose, ever did fulfil, being many of them highly ridiculous, absurd, and impracticable. But the evil to which I now particularly refer is the charge made by the landowner's solicitor for the document, which varies from 20 to 40 guineas! And, what is very remarkable, since the reduction of the stamp duty the charge has been increased. Now, the charge for such a document ought not to be more than 1*l.*, and I hope to see the time when it will be reduced to less than that—when a universal form, provided by Parliament, shall be adopted, containing, if possible, as few words as a hawk's or a victualer's license. The charge made at present bears heavily on poor lessees.

Another evil is the charge made by the lessees, or licensees, to the company for the mine. I am aware that companies can refuse to accept the terms proposed to them; but in times of mining mania discretion is absent, and, therefore, very foolish bargains are made; such a sum as 5000*l.* being paid for an old mine, the real value of which may not be 5*l.* There are two things which much surprise me—first, how lessees can have the effrontery to ask so much for an old abandoned mine; and the second is, that capitalists are so foolish as to pay the money. I hold it quite fair that a man who has taken the trouble to search out and obtain a promising mine should be well paid for his time and expense, and something beyond; but to ask 5000*l.* for it, or even 1000*l.*, unless there are discoveries of minerals to warrant it, is preposterous. I hope that speculators will discountenance this now common practice.

The lessees, or licensees, or their agents, in granting leases impose a heavy charge upon mining companies for the land taken for shaft burrows, ore-floors, buildings, &c., exceeding, indeed, the value of the freehold; and after this has been paid the lessees have no title to the land, except to a possession while they work; on giving up the work they surrender the land for nothing, notwithstanding it has been amply paid for. This is another evil which should be corrected; for, surely, if a man or a company purchase an article, it should be theirs; and if, on their abandonment of the mine, the lessor wishes to repossess it, he should refund a portion, at least, of the consideration money. A small sum, in many cases, would restore the land to its original value. Amongst the covenants contained in mining leases is one binding the lessees to give up to the lessor, on ceasing to work, all the buildings erected on the mine, such as count-houses, engine-houses, &c., which in some mines cost a considerable sum; and this must be done without a shilling acknowledgment, although the land on which the buildings stand has been paid for at the rate of 500*l.* per acre. Is not this a custom at variance with common sense and equity, and all ordinary business transactions? Must immediately after the termination of the mine the buildings so left are converted into cottages, and let by the lessor for the term of years. When another mining company enter upon the same ground for further prosecution, the necessary buildings have to be again erected, and surrendered also when that company vacate. What I should like to see is this: A lease for a term certain (say, 60 years), or for three lives, granted of the land containing the buildings, so that the buildings should be the property of the adventurers, the same as the cottages of miners belong to those who build them. The landowners are too selfish, and do not encourage as they should the development of the mineral resources of the country. I hope that the above-mentioned evils will ere long be corrected.

J. T.

MINERS' FUND FOR THE RELIEF OF THE LANCASHIRE OPERATIVES.

SIR,—Can we not raise a fund amongst mining brokers and speculators in mines for our starving fellow-creatures in the Lancashire districts? I believe we can, and that it only requires to name a receiver of the subscriptions to prove that both brokers and speculators can unbutton their pockets as well as other people. The fortunate speculator who refuses to do so deserves to lose every shilling he has earned, and I am superstitious enough to believe that such a thing would not be in the least improbable, whilst the unfortunate speculator must hope and believe that such a good and praiseworthy action, and for such a charitable purpose, will bring good luck in future speculations. Again, I am superstitious enough to believe that such is both possible and probable. The brokers need no encouragement; their subscriptions will be ready enough. We must bear in mind that by assisting these poor operatives we are but performing our duty—an imperative duty,—that if misfortune be brought on by no fault of their own, they are perishing for want of warm clothing, and starving for want of food. Many will say they have already subscribed. Probably so; so have I, but am willing to do so again. My cheque for 10*l.* is ready. I have spoken to the manager of the Metropolitan and Provincial Bank, Cornhill, on the subject. He has kindly consented to receive subscriptions, and will forward the various amounts subscribed to the proper quarter. I will call there every Friday for a list of subscribers, so that their names and sums sent to the fund may be inserted in the *Mining Journal* of the following day. Now, my friends, out with your cheque-books and prove to the world that miners can be as liberal as other people. A CAUTIOUS MAN.

REPLY TO "A DIRECTOR" AND "OVER CAUTIOUS."

SIR,—Your correspondents, "A Director" and "Over Cautious," whose letters appear in last week's Journal, remind me of the instructions given by the defendant's attorney to his counsel—"We have no defence, abuse the plaintiff." I certainly should not have taken any further notice either of Old Wheel Neptune or its directors, had not one of the above-mentioned gentlemen accused me of stating untruths. I must quote his words. He says—"Our agents can prove that the mine from the commencement of operations to the present time has not been inspected by any agent; that only one order has ever been applied for, and that has never been used;" also, that my statements "are a tissue of untruths." Can it be possible that this writer is really a director of the company? If so, I hope for the sake of the adventurers that his fellow-directors know what has been done at their mine better than he does. I now again tell him that my statement was perfectly correct; that a large shareholder authorised me to get the mine inspected for him; that he procured the order from the office; that I forwarded it to one of the most experienced agents in Cornwall—Capt. Henry James—and that he inspected the mine; the report was then forwarded to the shareholder, an order was sent to sell 100 shares, and what I did not state in my former letter I may as well state in this one—the shares were ordered to be sold at a discount. They, however, were not sold; and on the owner being informed that there was no demand for them, he withdrew the order. The parties to whom they were offered merely smiled and shook their heads. I believe I advised him, as I have several others, to offer the shares to the secretary of the mine, he being the most likely person to dispense of them.

When I commenced this letter I intended to have given the name and address of the gentleman alluded to; but thinking he would not like to have his name mentioned, I have enclosed in the envelope in which this letter will be sent, not only his order to sell 100 shares at a discount; but also his letter stating that Capt. H. James had inspected the mine for him. You, Sir, will thus be enabled to judge how far I am a concoctor of "untruths." As "A Director's" letter concerns the inspecting agent as much as myself, I trust Capt. James will see the necessity of letting him know that at least one agent has inspected the mine. "A Director" says, "I challenge Mr. Halse to prove the sale of a single share." This is a good joke. Now, in order to sell, it requires a purchaser to buy; and I readily admit I do not know of a purchaser. I beg, therefore, most respectfully to decline the challenge. Not a single share sold! Quite a sensation mine! Just after the appearance of my former letter several parties offered me shares, evidently imagining that I was "bearing" them. Not quite so innocent!

I had almost forgotten "Over Cautious." He has taken time enough to reply to my letter; and now he has done so, what does it amount to? Let us state the facts. He first challenges me to thoroughly sift the affairs of Old Wheel Neptune, and when I oblige him by doing so, and a full and complete business would adopt—by putting a few pertinent questions respecting the management and the financial position of the company, I am told that I possess an enormous amount of egotism to put such questions. That is, a writer challenges me, and because I accept that challenge, I am a very

impertinent fellow! Why, in the name of common sense, did he mention Old Wheel Neptune at all in his letter? In my letter about prospectuses I never once mentioned the name of the mine. Is it a fact that certain shareholders have been rather troublesome, and that they have written the secretary, humbly remarking that, in their opinion, my former letter called for an answer a little more explicit than was stated in his letter? Is it a fact that "Over Cautious" speaks of my mesmeric influence, and that he knows it by means of that? He says, "My mesmeric influence does not extend to him." I was a common-sense influence would extend to him, so that in future he would not throw out challenges to writers, and then, because they take the trouble of accepting them, just to oblige him, shower his abuse on them. Too bad, really. "Over Cautious" will, perhaps, try his hand at it once more. "Return your tailor's bills," indeed,—return your manners.

Notwithstanding all the abuse showered on me, I have the satisfaction of knowing that my letter has drawn forth a reply which must be highly gratifying to the adventurers in Old Wheel Neptune, and I, therefore, expect their thanks. "A Director" informs them that "if the number of shares allotted are not sufficient to bring the mine into a paying condition, one of the directors has agreed to take all the unallotted shares at par." This is a most liberal offer, and if I were a shareholder I should not rest until I ascertained who the liberal director was. The next information given is that for the leases and promotion 1500*l.* in cash and 2000 shares have been given. Now, 2000 shares, at 2*l.* 10*s.* each, amount to 5000*l.*, which, added to 1500*l.*, make 6500*l.*. The whole amount to be subscribed is 15,000*l.*, which sum, minus 6500*l.*, is 8500*l.*, or, supposing anything should unfortunately happen, such as change of mind, death, &c., to prevent the liberal director from taking up the 900 unallotted shares, the amount would be reduced to 6500*l.*, as the working capital of the mine; but whether it be 8500*l.* or 6500*l.*, take either sum, it is a pretty good slice off the 15,000*l.*. I am, of course, assuming that the statements of "A Director" are perfectly correct, and which I have not the least reason to doubt. He says, "there are no free shares." What does he call the 2000 shares given for promotion and lease, in addition to the 1500*l.* hard cash? A CAUTIOUS MAN.

P.S.—Since the above was written I have received a letter from the gentleman who had Old Wheel Neptune inspected, and who ordered the 100 shares to be sold, informing me that he had written to the secretary. He has kindly enclosed to me a copy of the letter, and from which I make the following extract:—"Every shareholder will feel indebted to the writer, 'A Director,' for the candid explanation of the points at issue; in the second paragraph he does a great injustice to Mr. Halse. What is described as 'a tissue of falsehoods' is true to the letter."

OLD WHEEL NEPTUNE.

SIR,—Two letters have appeared in the Journal, one on the 6th and one on the 13th, signed by "A Director" of this mine. In that of Dec. 6 he accuses "A Cautious Man" of stating that which was false; but in that of the 13th he, in a certain degree, exonerates "A Cautious Man" from blame, and throws the charge over to the inspecting agent, as in his last letter he says "A Cautious Man" was applied to, and a report of the mine was sent from an agent representing he had inspected the mine, and, from enquiries of our agents, it was found the inspection did not take place, but that the report was from "Imagination only." Now, Sir, I am the agent who received the order from "A Cautious Man" to inspect Old Wheel Neptune, for a gentleman in the North of England, who was a holder of 400 shares, and on Oct. 29 I went to the mine, and found that they were building an engine-house to receive a 70-hp. engine, and had begun to cut down a small shaft, for the purpose of putting down pumps, rods, &c., to draw the water from this extensive mine. These, at the time I was there, were nearly all the operations they were carrying on. From the conversation I had with the agent at the time, I found, also, that the shaft they were cutting down was only sunk to the 80 fm. level, and that it did not reach to the bottom of the mine by 23 fms. I and I told him then and there that it would take them at least three years to cut this shaft down and fork the water to the 80 fm. level, at the end of which time they will not reach the bottom of the mine by 23 fms. It was from these circumstances that I persuaded my employer to sell out at least part of his interest; 400 shares, with such heavy calls as will be required, would be a serious matter, as 20,000*l.* would, in my opinion, have to be called up ere they reached the bottom of the mine. I can well understand the reason why "Director" should wish to impress on my client, holding, as he did, 400 shares (which, if he were on the market, would, no doubt, have exerted a material influence on the market price), that the report was "merely imaginary," as no call could go underground to inspect it; but, as I see in the prospectus various reports, holding out prospects of success, I should like to know whether these reports were "merely imaginary," or did the writers examine the mine by means of a diving-bell. I would also ask these gentlemen, who have reported favourably on this property, if they or their fathers (from whom most of them must have derived their information) did not observe that all the bunches of ore met with by the former workers were in connexion with the greenstone, and no greenstone, no ore? I should also like to know whether any of these great bunches of ore have been found below the "gossan bunches"? From my own personal knowledge of the district, and the character of its lodes in depth, I am only sorry that my employer did not set on my advice, and part with, at least, a portion of his interest, as I believe, he had done so, he would have reason to be glad of it. HENRY JAMES.

Redruth, Dec. 16.

MINING IN IRELAND.

SIR,—I have read with much pleasure, in last week's Journal, the remarks of your Irish Correspondent on this subject; he bears weighty testimony to the rich field Ireland offers for mining enterprise, but laments the very limited number of capitalists who have sufficient experience to properly appreciate the good they can do for themselves, and for their country, by the development of this source of wealth. If the good and kindly spirit manifested by your excellent Correspondent could be brought to bear upon these matters, we might soon expect a fusion of English and Irish interest; but, so far as I can understand these matters (who have been for years an English adventurer in Irish mines), I can see but little disposition on the part of the Irish to aid in the development of this class of their national wealth. What are the causes of this apathy on a subject fraught with the utmost importance to her prosperity, individually and nationally? I am persuaded the rich mineral deposits of the country are abundant and inexhaustible, and require but capital and skill to yield enormous returns and splendid profits. England has the capital, the enterprise, the skill, the industry, the perseverance, and the patience to undertake such works, if encouraged by Irish landowners, and assisted by Irish enterprise. Your Correspondent informs us that his countrymen will be glad to join in undertakings in Ireland, started and conducted by the far-seeing English or Scotch. I am sure I may reciprocate this generous feeling, by saying that English and Scotch ready with their capital, and all the qualities necessary for such undertakings, I am sure, are eager spirit. I should be glad to see more of her capital tempted in this direction, instead of seeking such investments in foreign lands. These matters are of the utmost importance to Ireland; they are undeveloped sources of national wealth and prosperity, which your Correspondent should continually enforce by his able pen.

Your Correspondent's reference to the new concerns brought before the public is well-timed; they appear to be of a highly promising character. I happen to know the district of the Mourne Mines is rich in mineral deposits, and the reports on the property are from men of well-known sound practical judgment, and I have no doubt but they are in the right direction for success. I see the directors are composed of English and Irish; I trust they may work well together, and promote each others interests, and that others may do likewise—they will receive their reward.

Dec. 17.

AN ENGLISH ADVENTURER IN IRISH MINES.

LEGITIMATE MINING—ST. JUST UNITED.

SIR,—Nothing gives me greater pleasure than to read in the Journal of the success of mining undertakings. Every such success is a proof of the solidity, safety, and permanence of that great mining stock which constitutes the peculiar idiosyncrasy of this great nation. If any person were to speak of a nation of miners they would be understood to allude only to this country, possibly to Mexico, or to old Spain in the halcyon days of her 500 mines; and we bid fair to maintain that national distinction through a vista of insipid mining generations. I congratulate our old friend, Capt. Cartwright, on the admirable position he has obtained in this mine, through his peculiar perseverance, activity, and courage; and when we apply these terms to a speculator, we may well admire such qualities of mind and heart. Many a younger man would possibly have muddled the whole affair, and brought the mine to grief—a pass to which, by bad management, it had been brought occasionally before. I also feel a little egotism in the matter, as two years ago, when I reported favourably of this range of lodes, and predicted they would form a great and good mine, I foresaw that if they were not skilfully handled they would end, as many others had done, in disaster to the mine and in discouragement to the mining community, who often suffer loss through faults not their own, or of the mines in which they are interested, but simply because their affairs are not administered judiciously. I, for one, look at this issue with particular pleasure, because it removes me from a position in which some of my friends have been pleased to impute to me, of forming too sanguine views of the capabilities of mines; and if this mine had been managed by a miff instead of a clear-headed man, it would, no doubt, have afforded another instance to corroborate the judgment of those croaking gentlemen who are fond of scrutinising the black side of the silver shield, and prognosticating the raven-ery of bad luck to the mines. I should be glad if the able manager of this mine would look into the lode adjoining St. Just United, between it and the Land's End, when I believe he would find on the tin lodes running into these high granite cliffs another mining field or two, calculated to do credit to himself, to reflect favourably on mining in general, and to pay a company excellent interest on the funds necessary for driving adits under these immense blocks, and for erecting such batteries of stamps, worked by steam or water, as may be found necessary for the reduction of the tin.

MATTHEW FRANCES.

NORTH WHEEL FRANCES, AND ITS MANAGEMENT.

SIR,—Some time since you kindly inserted some remarks on this mine, the subject matter being the resuming the sinking of Hunt's shaft. The agent has now instructions to sink without delay. Why this was not done before is best known to the committee; had the agent been listened to, the 80 fm. level would long since have been reached, and good results, no doubt, arrived at. My present object is to call the shareholders' attention to the outstanding merchants' accounts, some of them owing since last March, whilst calls remain unpaid more than sufficient to pay off all liabilities. Why these are not enforced, as they ought to be, is another mystery I cannot understand. I herewith enclose you the last statement of accounts, that you may see that calls remain unpaid on the 15*th*, 19*th*, 20*th*, 21*st*, 22*nd*, 23*rd*, 24*th*, and 25*th* call a goodly array, surely. Is this fair, Mr. Editor, to parties, like myself, who pay up promptly as soon as the calls are made? I consider it most unfair and most unbusiness-like of the committee to allow these outstanding calls (that have been made not two or three months, but two or three years) to remain unpaid so long. I find a resolution was passed last Wednesday, to the effect that all shares should be forfeited with calls in arrear, made prior to that date, unless paid by the 27*th* inst. We shall see if this resolution is strictly enforced; if not, I, for one, do not intend paying another call until it is carried out to the very letter. Calls allowed to remain in arrear for years, merchants' bills unpaid for a ten months, does not say much for any mine, much more for one like North Frances. A SHAREHOLDER.

WEST WHEEL SETON—NORTH WHEEL SETON.

SIR,—Referring to the letter of Mr. Bowden, allow me to state that the principal part of the shareholders are gentlemen living in the immediate neighbourhood of the mine, all of whom know how to look after their mining property exceedingly well, and which they cannot do without taking care of the property of their co-adventurers. It will, however, be interesting to the shareholders of New Wheel Seton who are living at a distance from the mine that they should know that in West Wheel Seton they have the very same elvan course as they have in New Wheel Seton; that the lode is on the back of the elvan course; that the indications, the character of the ore, and the strata about the lode are so exactly similar in every respect the one to the other, that the most experienced and acute miner would not mistake West Wheel Seton for New Wheel Seton. Mr. Bowden, in speaking of Wheel Seton, says—"where there is

as fine as gossan as any miner would ever wish to sink under. In this he is quite in error; the back of the lode in Wheal Seton was never seen or worked upon by the Wheal Seton adventurers; the lode which gave them the profit was cut by driving from Bull's shaft, either at the 50 or 60 fms. level; the lode was first cut on the eastern side of the great cross-course; they then came back, and cut a lode on the western side of the cross-course, which afterwards they called the south lode; they afterwards cut a branch in continuing the cross-cut north, which they called Kneebone's branch; and in the same cross-cut north they cut the north canter. None of these lodes were worked upon from the surface. Is it at all likely that Capt. J. Vivian, with all his experience, would sell to Wheal Seton adventures for 3000l. or so, a piece of ground in which there was, as he says, such a "fine gossan," and out of which Wheal Seton Mine has given nearly all the profit it has yet made; but, perhaps, this sale, which took place more than 20 years ago, was before Capt. J. Vivian knew a good gossan. The truth is, there never was any gossan in the back of Wheal Seton lode which any miner in Camborne ever heard of, and certainly no adventurer in Wheal Seton ever heard of a gossan being on the back of the lode.—*Miner's Exchange, Camborne.* C. CARKE.

EAST BRONFLOYD MINES.

Sir,—I have read in your valuable and highly-popular Journal of the 6th inst. a letter from a person calling himself "A Miner," but who, from the language used, I consider to be anything but that. In the first place, I have to say that the reports in the Journal from time to time have not in the least exceeded what is warranted by fact; and I can tell "A Miner" that if he were to visit the East Bronfloyd Mines he would very soon be convinced such was the case, and hesitate no longer in confirming his proposed liberal challenge. What makes me think also that the "Miner" is only a fictitious one, is that he should say in his letter that 10 tons of ore in the rough, or in the stone, cannot be scraped together within the boundary of the mine. Does "A Miner" know the boundary of the mine, or the extent of the set? If he did, I think he ought to have been ready, as he cannot know what may be in the stone, out of human sight. Inasmuch as "A Miner" has come out so liberal with his challenge, I hope he will get his money ready, as it will, without a doubt, have to be paid by him to the Llanochair Relief Fund.

In order to put a stop to such frivolous epistles as that of "A Miner," I, as a holder of 250 shares in the mine, beg to acquaint the world at large that I have reported the mine as it deserves; and to the best of my knowledge, skill, and belief have always done so, and will defy any person to refute what I have written respecting the mine; and, in furtherance of what I have reported, I say that we have discovered a lode of ore, and about 50 fms. in length, and have driven levels upon that to the extent of about 15 fms., and which we are positive will yield from 30 to 25 cwt. of ore per fathom. We have also sunk a shaft on the lode for about 15 fms., to 20 fms. in depth, in the bottom of which we found the lode to be about 30 ft. wide, containing ribs of ore, varying in thickness from 2 to 6 in. for the whole distance. This at once shows that "A Miner" knows very little of mining, or he would not have endeavoured to frustrate the views of the respectable company owning the mine, and who are quite satisfied with the working thereof, and who, with myself, have not the slightest notion of selling a single share in it. If "A Miner" intends to write again let him come out honestly, and in fairness append his name to his letter.—*Treatise, Dec. 10.* CHAS. WILLIAMS.

THE GREAT DEVON AND BEDFORD MINING COMPANY.

Sir,—This company is indebted to "Inquiry," and to your liberality in affording space for the insertion of his letter, and this reply to the various questions he desires to have answered prior to his applying for shares. "Inquiry" asks why the directors agree to purchase the freehold of the Colcharton estate, of 67 acres, for 50000l., and what will it let for per annum? If he will refer to the prospectus he will find that it is then stated that the freehold (surface and minerals) has been purchased for 150000l.—100000l. in cash, and 50000l. in shares of the company. With reference to the surface, which consists of cultivated land, homestead, &c., the owner has hitherto been a tenant, but it is estimated at the value of 1500l. per annum for surface rent. "Inquiry" asks, "how can it be stated that five of the richest lodes of the Devon Great Consols and Bedford United Mines are well known to run into and through the entire length of the land, with a large cross-course and caunter lode intersecting them?" When Captain Phillips says, "There are as yet no underground workings, so that I cannot report anything below the surface," "Inquiry" ought not, in all fairness, to have stated the report so partially, for his extract refers to the relative yield of minerals in the lodes, and not to the lodes themselves, as "Inquiry" says, "no surveyor can report upon this point as a fact upon an undeveloped property." Captain Phillips says, "The same report, there are three champion lodes running through the property"—the Bedford main lode, the Tavistock lode, and the Wheal Thomas or Devon Great Consols south lode, there may be other lodes, and he states also that "the geological position of the property is everything that can be desired, having on the north boundary the Devon Great Consols, on the south the Old Wheal Crebor, and on the west the Bedford United." Referring to the mineralogical indications on the property, he says, "The strata are killed and clayed, which has hitherto been found in the best mines in the district, &c., and its very favourable position, being almost surrounded by good mines, the known champion lodes passing through the estate, and the strata in which they are imbedded," &c. Can language be stronger in favour of the existence of the lodes, and the probability of their continuation yield as on the adjoining mines? Captain Richards, Cleme, Davey, John Phillips, Tretheway, Rowe, Cook, Metherell, Goldworthy, Gifford, Snell, and Chennell, have separately reported upon the Colcharton property, all speak in equally positive terms to those of Captain Phillips, and without reservation. Captain Davey says, "Since the commencement of the present working of the Bedford United Mines, and the more recent discovery of the Devon Great Consols Mines, Colcharton has been a great deposit of metallic mineral. There are five known lodes on the Colcharton estate, all of which are of great promise. The caunter lode is seen near the south end of the estate, and where this lode intersects the others no doubt there will be great deposits of ore found." Captain Tretheway also confirms this statement.

"Inquiry" appears to think the directors use too sanguine terms as to unquestionable success; he will be surprised to learn, however, that although Captain Nicholas Enner (whose name he will not dispute as a high and competent authority) has given a very decided opinion upon the probability of the Devon Great Consols main lode passing through the north-east portion of the Colcharton estate with a south underlie, yet the directors have not allowed it to be in the prospectus, or even marked its course on the map; and it may be added that the recent workings of the Devon Great Consols confirm Capt. Enner's view (this rich lode is proved to be a caunter lode, and south-east). He can, therefore, scarcely charge the directors with being excessively sanguine; they are, in fact, only stating what is proved by competent authorities, whose statements are clear and decisive.

"Inquiry" refers to the amount to be paid for the freehold of the estate, taking the minerals at 100000l., and upon this matter he is a little ambiguous; however, he says that if "a set," on which is the Wheal Thomas lode and the main lode of the Bedford United Mines, is realised, what is 100000l. for the lode's dues paid by the Devon Great Consols amount to 170000l., and the Bedford United to 240000l., a total of 410000l., and he complains the directors upon their first-rate bargain, should their expectations be realised.

"Inquiry" refers to the estimate of 60000l. to be sufficient for developing the mine up to a dividend-paying point, and would feel obliged by the directors publishing these estimates. With your kind permission, the report of Capt. Phillips is appended to this letter; his estimate is 62000l., but reducible to 60000l., for reasons given by him; Capt. Chennell's estimate is 52000l., and will be found amongst the printed additional reports; Capt. Richards's is 60000l., and he has accompanied it with suggestions for working the mine. Both the first and the last being engaged upon the adjoining mine, they may be held to be competent authorities; but "Inquiry" need not be surprised at this, to him, small amount, for the Devon Great Consols reached a dividend point at 18 fathoms, and with an expenditure of 7000l. Wheal Crebor became productive at 30 fathoms, Old Crowdale at 50 fathoms, the Bedford United at 35 fathoms, and the Liscombe at 30 fathoms.

"Inquiry" desires to know "how far is the set from the working ends of the Devon Consols lode, the Bedford United, and the Wheal Crebor lodes?" The Wheal Thomas lode is 400 fathoms distant, and the workings approaching. The engine-shaft of the Bedford United is 450 fathoms; this shaft is sunk 130 fathoms, there are ten levels, all working east towards the company's set; the nearest is now within 200 fathoms, and the yield of rich minerals continues as they proceed. The Wheal Crebor lode is 30 fathoms distant.

The last paragraph of "Inquiry" evidently is a mistake, which would, no doubt, have been corrected if he had seen a proof. In referring to the grant obtained by the Devon Great Consols, of an estate to the north and partly east of the Colcharton estate, and separated only by the usual fences, for which that company paid 200000l., and agreed also to pay 15th royalty upon the minerals obtained, "Inquiry" says, "Do the Devon Consols rich lode pass through the same? I presume they do, from the eligibility of the purchase of the Colcharton Estate—but I cannot see it from the fact as to the amount of lord's dues which have been paid, as set out in the fact as to this would have been the case without any necessity for the lodes in respect of which the dues were paid to pass through the Colcharton property."

"Inquiry" will perceive that it is impossible to arrive at what he means; the estate in question is an entirely separate one, and adjoining, and it is believed that the rich caunter lode of the Devon Great Consols passes through it at an inclination south-east, and which lode, it is anticipated, will pass through the north-east portion of this company's property.

The eligibility of the purchase of Colcharton, however, as announced, rests upon the known lodes already mentioned as passing through it, and the great probability of their yielding rich minerals. If, in addition, the views of Capt. Enner should be realised by the Devon Consols rich lode being found on the north-east of the set, the undertaking will prove a very great success.

The directors are obliged to "Inquiry" for giving them an opportunity of further explanations as to the value of the Colcharton estate, and trusts the answers given will be satisfactory, both to him and the public. H. BROOK, Sec.

Winchester-buildings, Dec. 18.

Devon Great Consols, Dec. 16.—I am in receipt of your note of the 13th inst., and, according to your request, I have made an estimate of the cost of trying the mine. In the first place, it will be necessary to shod the ground thoroughly, so as to find the lodes, and also to ascertain their character and bearing at the surface, after which the best position for the shaft can be decided upon, and taking the appearance of the ground at Colcharton as it appears at surface, and the general nature of the country in the neighbourhood of the mine as a guide, I think that for 60000l. a shaft can be sunk to the depth of 40 fms. and the set can be extended therefrom at the depths of 30 and 40 fms. for a considerable distance. The sum, of course, will include the cost of an effective engine, pit and timber-work, capstan shears and rope, with all other usual expenses attending the fair prosecution of the mine. It will also admit of an expenditure of a fair sum for the trial of the mine progress. The depth of 40 fms. may not, perhaps, be considered sufficient by some who are accustomed to districts where very deep mining is required, but in this neighbourhood, almost without an exception, the ore has been found comparatively shallow, and it is but reasonable to suppose that it will be the case here also. I do not exactly know the number of acres included in the ground of a fair sum for reaching from a point to the north of our main lode on to and beyond Colcharton, which estate it adjoins north, west, and east, and may be said almost to surround it. The writer of the letter in the *Miner's Journal* remarks that in my report I state there is coming to this conclusion. I think, however, that this is scarcely a fair statement, inasmuch as I have taken some care to show in the report that the property is situated in the midst of the most productive mines of the neighbourhood, that some of the lodes of these mines must pass through the estate, and that these lodes are intersected by a very fine cross-course, reasons which I had hoped would be considered as strong as any that could be added in support of the favourable opinion I have formed of this speculation.—JAMES RICHARDS.

Bedford United Mines, Dec. 16.—In reply to your letter of the 13th inst., I beg to say that Wheal Maria and Wheal Fanny portions of the Devon Great Consols produced

large quantities of ore about 30 fathoms below the surface. The eastern part of the mine did not prove productive so shallow. Wheal Crebor became productive about the 30. Old Gannals Lode produced some good ore above the 50, but at this level, and below, the mine proved most profitable. Old Crowdale produced large quantities of ore very near the surface. Liscombe yielded large quantities of ore about the 30, and below; and Bedford United has yielded a good deal of ore about the 35, and we continue to break some good ore from this level: ESTIMATE OF COST.

Containing the surface	£ 20 0 0
Sinking the engine-shaft 50 fathoms, including timber for casing, diving, and bearings, shafts, &c., say, 16l. per fm., on an average,	800 0 0
Driving 600 fms. of levels, including the removal of stuff, at 6l. per fm.,	3600 0 0
New 35-in. cylinder steam-engine	1000 0 0
Masonry for engine-house, boiler-house, and stack, including the raising and carting of stone, mortar, &c., about 600 perch, at 5s. 6d.	165 0 0
Carpentry and sawing for the buildings	36 0 0
Timber for ditto	60 0 0
Timber and ironwork for new shears, including making and erecting	25 0 0
Horse-whim and shaft tackle	25 0 0
New capstan	25 0 0
Capstan-rope, 50 fms.	80 0 0
Small whim chain	25 0 0
Building carpenters and smiths' shops, small counting-house, and a house for materials	100 0 0
50 fathoms of 10-inch pitwork, including rods, rod plates, &c., complete	225 0 0
Shaft-bob	25 0 0

Total

£ 6211 0 0

This calculation is for new materials, but I think, by taking the advantage of mine sales you would obtain your materials for two-thirds of the price of new, and which would answer your purpose just as well.—JAMES PHILLIPS.

GREAT DARREN, AND VOLUNTARY WINDING-UP.

Sir,—Knowing your willingness to uphold the right and expose abuses, I am anxious to make a few remarks, and ask a question or two in reference to this matter. It seems the late company of this valuable mine, not having obtained sufficient support from the public, determined to wind-up their affairs by voluntary liquidation, and had this process been allowed to proceed the creditors might have received a dividend of at least 10s. in 11, but, while in London last week, I was informed that certain persons imprudently undertook to upset the voluntary winding-up, and canvassed for signatures of miners and merchants to a petition to force the company to wind-up in the Bankruptcy Court, in which they succeeded, and it is said the first bill of costs amounts to upwards of 1500l. Now, Sir, I beg to ask these "poor man's friends," or some other kind person, if the report is true that 6s. 3d. is allowed for witnessing the signature of each person attached to the said petition? If so, it would be some satisfaction to know by whose interference the creditors have been deprived of every shilling of the assets of the company, for I fear that these charges will be paid in full, while the poor labourer may not get a farthing. I was further informed that one of the promoters of the company had taken 6000l. worth of the stock of the company, had sold the same, and is now a debtor to the company to the amount. Can this be true? If so, who is he? as I think it desirable that labouring men should know their friends. The author of "Ancient Mining" has given us no instance of such practice by our forefathers, and I am bound to think this a bit of modern trickery peculiar to a certain class of men.

A considerable creditor, and agent of North Hafod, Nantco, and Great Darren Mines.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market continues dull in most of the mines which are generally looked upon as the leading business of the day; and but for the transactions in connection with and preparation for the fortnightly account, which took place on Tuesday, the *bona fide* business of the week would have been more than ordinary inactive. But considerable excitement prevails in reference to recent transactions in EAST CARADON, arising from the non-delivery of the shares "beared" for the account. The settlement, which usually passes off satisfactorily, has been anything but satisfactory to the great time, and the unpleasant position in which matters now remain is far, far from pleasant to those who have co-operated in the late depression of the shares. There is evidently a severe season of trial and anxiety now approaching, for the advance in price of the shares, the general improvement of the mine, and the continued scarcity of the stock, are facts that cannot be overcome without serious and ruinous losses. The differences which are required to compensate for the non-fulfilment of a contract are but ordinary events in the commercial world, and with men who can discharge the liability it is merely treated as a loss; but the difficulty will be with those of previous opinions, and devoid of any personalities, would not necessarily fail on those who can complete their engagements, notwithstanding the inability of others. It will probably take another week to learn the extent of the calamity which the evil and pernicious system of "bearing" mining shares involves. There is no doubt but the most unjust means have been used for some weeks past to depress the value of the property, and notwithstanding the ingenuity of the parties interested, and the varied representations made to attract attention and influence the minds of holders, it must be highly mortifying now to find themselves driven into a distressing quietude. But the most violent detractors and acute calculators may suddenly become sensible of the errors of their previous opinions, and devoid of any personalities, would not necessarily fail on those who can complete their engagements, notwithstanding the inability of others. It is really surprising to witness the zeal and disinterested kindness which prompt some men of business to press prominently forward by cautioning and advising the shareholders in the disposition of their property. In last Saturday's Journal an advertisement appeared strongly urging holders to "sell at once, before the price drops to 25l.," furnishing at the same time statements which were given as facts to corroborate the views then entertained. However injudicious and inconsiderate a well-meaning person generally may act when led on by a rash judgment, he may be allowed to alter his opinion before Saturday and Monday; for although 25l. per share was considered the maximum value on Saturday, it is affirmed that on Monday morning the shares were believed to be worth 40s., endorsing the altered opinion by purchasing at that price. However indecisive Saturday's act may have been, Monday's statement (but not assertion) may be considered a modification of an announcement before made. The report of Captain H. James, after his inspection on Wednesday, more than confirms the above official statement, and he observes, "I never saw so great a change in a mine before in so short a time."

DEVON GREAT CONSOLS have been in request; and a fair demand for WHEAL SETON, NEW SETON, TINCROFT, COOK'S KITCHEN, GREAT SOUTH TOLGUS, and a few other favourite shares.—EAST CARB BREA, NORTH DOWNS, NORTH CROFT, FERNDEBREA, WHEAL AND EAST GERRILLIES have been less active.—STRAIT PARK, GRAMBLIN, and ST. AUSTIN, NORTH CARROLL, &c., have been done at quoted prices.—NORTH TREKERRY, WEST NORTH ROSEKAR, EAST ROSEKAR, and HARSHETT have been more in demand, and at former prices.—GREAT WHEAL FORTUNE, WHEAL GRYLLS, BASSER and GRYLLS, MARGARET, and PROVIDENCE are in slight request.—EAST CARADON has been in good demand, and although some slight fluctuations have taken place, they are advancing.—MARKE VALLEY, LUCROFT, NORTH PHENIX, and TRELAWAY have been freely dealt in.—WEST CARADON and MARY ANN have been less enquired for.—HINGTON DOWN and EAST GUNNIS LAKE have been sought for, at former prices.—LADY BERTHA shares have fluctuated, but were rather scarce for delivery on the account.

EAST CARADON (the official report appears among the "Mining Correspondence") The sale of 465 tons (computed) at Truro, on Thursday, realised 3255l. 15s. for the month; but as there is general overweighing, the total amount may be fairly calculated at 3350l. And it should be borne in mind that the above returns were made during the period when the water was up to the 60 for nearly a fortnight, whilst the pitwork was undergoing a change. It is gratifying to learn that, after the most careful and scrupulous calculation of the reserves, which were represented as being lessened considerably below the official estimate, they are now adding full 20000l. per month, and will keep up the future samplings to 500 tons monthly.—WHEAL ARTHUR is reported to have improved in the shaft, where they have good stores of ore coming in.

LADY BERTHA they have in the bottom level, and it is not productive at the point. The lode in the winze below the 40 is large, but dredging work. The 30 east is yielding about 3 tons per fathom—rather coarse work. Other places continue without any material alteration.

EAST GUNNIS LAKE continues to hold out much promise; the arrangements having been completed to the 45 enables them to operate on a long run of ore ground. There are three stopes in the back of the 45, yielding together about 8 tons per fathom. The 36 east is yielding 4 tons per fathom, and the stopes and rises in the backs are worth 6 to 10 tons per fathom. The mine, upon the whole, is considered in a fair way of making profit from the present appearance of the calculations, and meeting future costs, so that with any important discovery profits may be reasonably expected.

At GREAT WHEAL MARTHA the lode in the bottom level west continues to yield from 4 to 5 tons per fathom. The winze sinking below the 40 is yielding about the same quantity, and the stopes in the same level east about 4 tons per fathom. There are several other productive places, yielding about the same quantity of ore, and afford strong evidence at present that large returns may be expected; indeed, the general prospects are of a more encouraging character than for some time past.—AT MAUDLIN MINE the prospects are of a more encouraging character than for some time past; the lode in the bottom end west is producing some rich stones of copper ore. A cross-cut is being extended on the cross-course with a view to intersect more of the lode, in driving which they have met with some rich and encouraging work. A good discovery is fully expected in this mine before long.

NORTH JANE is progressing satisfactorily, with appearances in some of the points of operation indicative of early improvements. The lode in the shaft (which is down about 5 fathoms below the 20) is worth 8l. per fathom. The several productive places hold out much encouragement, and, in anticipation of discovery, additional heads of stamps are being erected, so as to enable them to return the stuff as raised.

GREAT WHEAL BURY is reported to have very much improved in several important points. The lode in the 130, east of the engine-shaft, is worth 35l. per fathom for tin. At Offord's shaft, 40 fathoms further east, the same run of tin ground has been cut. A winze sinking below the 100 is worth 60l. per fathom for copper; and in the 100, east of Matthew's, the lode has increased in size, being 5 ft. wide, and worth 30l. per fathom for copper. All other places without any alteration.—ST. JUST UNITED: The tin ground in the new discoveries continues to hold out, and the mine without any change. The new 16 heads of stamps have commenced working, making altogether 48 heads, and still more are necessary to compete with the return of stuff as raised.

At EAST ROSEKAR the lode in the shaft has fallen off a little, but a further improvement is expected. They have resumed driving the 65, east and west, and as a good lode went down in the 55, they fairly anticipate having an improvement in these ends: the eastern end is worth 8l. per fathom, and the western 7l. The 55 west is valued at 16l. The stopes behind the end is worth 30l. per fathom. All the other places are looking much the same as last week. They calculate on sampling upwards of 100 tons on the 23d inst. Since writing the above, I have been advised that a side lode has been discovered 24 ft. north of the main lode, and is worth full 10l. per fathom, and from what can yet be seen of this branch, or lode, it will form a junction with the main lode in about 6 feet deeper. The 55 west has improved, and is now worth from 20l. to 25l. per fathom.—AT WHEAL HARRIETT the lode in the winze in the bottom of the 100 is worth from 50l. to 60l. per fathom, and is now down to within 12 feet of the 115. The 115 end is within 6 fathoms of the winze, but the water is not lessened in the winze, which gives rise to the impression that they may be driving on another, or a distinct portion of the main lode. Alexander's shaft is down 12 fathoms below the deep adit, where the lode is worth from 13l. to 20l. per fathom, the shaft to which depth is perfectly dry, and it is the belief of many practical agents of the locality that the ground is drained by Dolcoath, which mine lies about 100 fathoms to the north; if such be the case, pumping power will not be required to assist in the sinking of the shaft.

WHEAL GRYLLS is reported to have further improved in several important places. The next account will be on the 23d inst., when a most excellent report on the mine may be anticipated.—EAST WHEAL GRYLLS is stated to be looking better. There is good lode of tin coming in at the east end, on middle lode, which will give good backs there below 35 fms. to surface. The 20s. DOWNS is stated to have improved in the 40 north, on the caunter lode, where the end is worth fully 40l. per fathom. Other places are looking better, and the mine generally presents more than ordinary prospects,

and will meet all costs. From the position of the mine, with Providence on the west, and the same lode traversing the set, there is little doubt, when efficiently opened, it will become a permanent and paying mine.—ROSEKAR WATER: The operations which are going on, although of a limited character, until the close of the share list, are of the most satisfactory and encouraging character. The lode is represented to have been improved, and will, no doubt, turn out highly productive.

PANT-Y-DWARTH MINE (near Mold): The prospects of this property have been improving for some time past, and the recent discovery in the new lode has very considerably improved the general character of the mine. In extending the 44 cross-cut they have intersected the new lode, which is found highly productive, carrying fine work for lead in solid masses of lead of 2 cwt. in a stone. They have also intersected the same stones of lead; and are now in course of driving another cross-cut from Moseley shaft, 50 fathoms from surface, and about midway between the two cross-cuts at which point they expect to cut the lode in about a fortnight, when a valuable run of ore ground will be laid open. Rich samples from this lode may be seen at the office of JAMES LANE.

From Mr. GEORGE BATTERS:—The Market for Mining Shares has been rather more animated during the week, but the business is of a spasmodic character, and to a great extent centred in time bargains in EAST CARADON; the public, as well as the jobbers, have been buying speculatively and selling speculatively—that is, making themselves "bulls" or "bears" of stock, as their fancy may lead them. In fourteen days the aggregate rise in East Caradon has been equal to 60,0000l.; while most other shares of merit have declined in price, and many are so overlooked as to be selling for purely nominal prices. Dealings in mining shares are characteristic of mining. Mining is speculative; and certainly when a mania sets in on any particular share, it is sure to be driven down to less than its value; or, if the speculation is on the other side, driven up to prices where a profit, or even a return of capital, are alike beyond the reach of possibility. During the year WHEAL SETON shares have risen nearly double; the rise has, however, been gradual, and with all the mine is only selling for about 60,0000l., though paying large dividends, and is in one of the best districts in Cornwall. NORTH ROSEKAR, adjoining, is only selling for 25,0000l., though there is a course of ore discovered for 45 fms. in length, worth on an average 60l. per fm., standing for 10 fms. high untouched, and with a course of ore in the shaft worth 120l. per fm. This place of ground, when driven through for a few more fathoms, will have laid open 27,0000l. worth of copper. This discovery is entirely independent of the eastern, or tin mine, which is now in itself all that the shares are selling for. Judging by the general movements of the public in their investments in mines, the mine will continue to ignore North Rozeke shares at 37l., and buy them at 100l. or 120l. North Rozeke shares are selling now for one-half the value of the reserves and the plant. Wheal Seton was in the same position twelve months ago. NORTH CROFT is another share in the neglected class, that will soon tell its own tale: the actual discoveries of tin and copper made at this mine remove it entirely out of the category of speculation. Dividends will soon be resumed, and the mine placed in a position of stability of the most substantial character. From figures of parties holding large numbers of these shares, they have been driven down to 5l., from this figure an immediate rise may be looked for, as these have now been absorbed by the investing public. Such are the anomalies of mining—no medium course, either absurdly high or unreasonably low. Money has been in fair but not excessive demand—at about the Bank's minimum. Judging from the favourable Bank return, and the appearance of the continental exchanges, it is improbable that any alteration, the Bank's rate will be made this year. The tone of the market for Consols is more favourable. Railways have been dealt in only to a small extent, but the tendency of prices has been favourable. Foreign Stocks in the early part of the week were not so high as they have since been, but have since risen in great demand. Banks and miscellaneous shares are more offered, and quoted lower. The tone of the market for metals is more favourable for the seller. In the case of demand, and a slight advance has been established in the standard at the weekly sale of copper ore in Cornwall.

The final close of the Market for Mining Shares is more animated. NORTH CROFT have risen to 5 1/2 to 5 3/4; NORTH ROSEKAR, 38 to 39; EAST CARADON, 44 to 44 1/2; WHEAL SETON, 12 1/2 to 13; WHEAL UNTO, 5 1/2 to 6. Wheal Unto has improved in the lode in the flat-road shaft, now worth for copper and tin 30l. per fm., and evidently the price of a rich course of ore. [EAST CARB BREA, 11 1/2 to 12; these shares in the early part of the week were sold as low as 10 1/2; but subsequently became in great demand at the enhanced quotations. The 60 west of the middle lode, is worth for copper 2 1/2 tons per fm.; the winze sinking below the 60, 3 tons; the 50 west, on the new lode, 1 ton per fm. SOUTH CARB BREA, 2 1/2 to 3; the lode in the 98, west of the flat-road shaft, is worth 20l. per fm.; the 98 east, 10l.; the stopes in the back of the 65 are let to twelve men, at 6s. in 11. GREAT SOUTH TOLGUS shares rose to 7 1/2, fell to 6 1/2, and finally close 7 to 7 1/4. The lode in Lyle's shaft, sinking below the 140, is worth for tin, upwards of 1000l. per fm.; the lode in the 140, west of cross-cut, is worth 20l. per fm. SOUTH ROSEKAR, 38 to 39; the lode in the 184 west is worth for copper 50l. per fm., and the stopes at the bottom are worth an average 60l. per fm. The mine has been in active demand. EAST CARADON MINE has greatly improved since last week; the 50 east is valued at 50l. per fm.; the 60 east at 15l. per fm.; the 70 east at 45l.; and the 70 west at 50l. Shares have risen daily; the highest price attained was 45l., and the closing price is 44 to 44 1/2. A large business has been done in WHEAL SETON shares, closing at the highest point of the week—18 1/2 to 18 3/4. WEST SETON shares are also firm; DEVON GREAT CONSOLS and SOUTH CARADON also maintain their price. Tin mines—COOK'S KITCHEN shares have risen to 31, 32. WHEAL UNTO shares have been actively dealt in, rising to 5 1/2, 5 3/4, 6, 7, 8. FERNDEBREA, 41 to 42; WHEAL GRYLLS, 32 to 33. In foreign mines, Santa Barbara have been largely dealt in at 5 1/2 to 6, prom.; Quebrada at 22s. 6d. to 27s. 6d. Lead mines have been dealt in only to moderate extent. LUPCOTT'S ADVANCED. BURN GWIO, LONG RAKE, and BILLINS, are all steady at quotations.

From Mr. EDWARD COOKE:—Business has been unusually active during the week, and large transactions have taken place in several mines that are in favour just now, to the exclusion of others that probably possess equal merits. At this period of the year (when it is understood that the public generally limit their operations, and, consequently, prices are unfavourably affected) an opportunity is afforded to intending purchasers to buy into mines on very favourable terms. A reaction will surely take place in the early part of the coming year. EAST CARADON has again monopolised the principal attention, and between the operations of the contending parties the mine has been the subject of the highest estimates. There is no doubt that an impartial and reasonable man would venture to say that this is not a fictitious price even for this splendid property, and in all probability a reaction will take place, when the outstanding accounts are adjusted at the end of the year. I am not going to say one word against East Caradon, for I believe it to be one of the best mines in Cornwall; but the advice that gold may be bought too dear may well be applied to East Caradon shares at their present price. The mine at this moment stands at a market value that exceeds, by nearly 200,0000l., the highest estimated value of the reserves of ore. I leave the readers of the Journal to draw from this their own conclusion. There is no reason to suppose that the mine is in a state of decay, and that the shares should have receded since the meeting. The lamented death of a very large holder of these shares did not, in my opinion, justify the decline, and yet that appeared to be the cause. These shares are a splendid legacy to be left, paying, as they will (for many years to come) good dividends, while the reserves of tin ground are being rapidly augmented. With such prospects as Tincroft presents there is no fear of the late deceased account being placed on the market, and even if the value of the shares were offered, such is the *bona fides* of this property, that they will be all quickly absorbed. I have no hesitation in saying that my readers ever since the shares were at 6l., and I believe them to be as cheap at the present price as they were then, owing to the great progress that has been made, and the great increase of reserves of tin and copper. I have every reason to believe that the adjoining property—Hilgion Mines—although only at present in their infancy, will be equally successful. The meeting of GREAT SOUTH TOLGUS adventurers was held on Thursday, and was one of the most satisfactory, so far as the prospects of the mine are concerned, that has ever been held for a long time. At a moderate calculation, upwards of 25,0000l. worth of ore has been discovered in the shaft, and driving the 140 fathom level, and this has been continually increased. The lode in which this tin has been discovered is the Highbury lode, that produced such large quantities of tin, and gave such large profits to the shareholders of the adjoining mine—Carn Brea. Captain Daw is the manager of both these mines. His report, read at the meeting, is full of hope. His opinion of Great South Tolgus is more than borne out by other agents who have recently inspected the mine. The shares continue in good demand, and there is every prospect of a very great rise in them before the next meeting. WHEAL GRYLLS have been in good demand all through the week, and even if the value of the shares were offered, such is the *bona fides* of this property, that they will be all quickly absorbed. 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3-in. diameter pump. At Richard's shaft, which is the nearest to our workings, they cut into the elvan course, and this let out so much water as to overpower their pumps. The water was then taken out by means of a 3-in. pump, and the shaft was then the act of sending down a new lift of 13-in. pumps when the capstan was left to run, and destroyed all their former work. There is in this shaft now all of 100 fms. of pitwork, which is the property of the present company. The value of this part of the property is estimated to be about £100,000. It is the only part of the property which is not to be sold in this dam. I mention these particulars to show the shareholders that the engine we have purchased, a 48-hp., with two boilers of 24 tons weight, is of ample power to drain both the mines, being more than double the power of the 36-in., in which the engine is now working. The 48-hp. engine will be able to raise water from the level of the sea only a 6-ft. stroke, equal run, and a very insignificant quantity of water will be raised in such a day. The last few days of fine weather have got on so well with the works, we have uncovered a large piece of the quarry, put up the store-house, col-

we estimate the raisings for December month at 450 tons.

FORTUNA.—Dec. 6: Canada Incoşa—West of Taylor's Engine-shaft, the 100, east of Clavel sump-winze, is worth 4 tons per fathom. The same level is worth 6 tons per fathom; this end is passing through a splendid shoot of iron ore, is 5 feet wide, and leads throughout. The 90, west of O'Shea's shaft, is 1 ton per fathom; lode large, and moderately easy for driving. The 70, west of Morris's shaft, is worth 3 tons per fathom; this level has been very productive for the past month. The 60, west of Morris's shaft, is passing through a splendid piece of tribute ground.—East of Engine-shaft: The lode 50, east of Moron's winze, is small and unproductive. The lode in the 55, west of Moody's shaft, has fallen off in value of late. The same level, east of Ball's shaft, is worth 3 ton per fathom; lode very wide and strong. The lode in the 45, west of Morris's winze, is small, and the ground unsettled.—Shafts and Winzes: Guillén's shaft, is worth 1 ton per fathom; this winze is going down in a splendid lode. The 30, west of Zamora's shaft, is small, and the ground unsettled. The father's shaft, in Zamora's shaft, is small, and the ground unsettled. Salvador's shaft, is worth 1 ton per fathom.—Los Salido's Mine: The 75, west of Morris's engine-shaft, is worth 1½ ton per fathom. The 65, west of Gela's winze, is worth ¾ ton per fathom.—West of Buena Amigo's shaft, is worth 1 ton per fathom. The 45, east of the shaft, is worth 1½ ton per fathom.—East of Engine-shaft: The 75, east of the shaft, is worth 1 ton per fathom. The 65, east of Romero's winze, is worth 1 ton per fathom. The 55, east of the shaft, is worth 1 ton per fathom. This end has opened a splendid piece of tribute ground during the month.

THE COPPER MINES OF SOUTH AUSTRALIA.—The Moonta Mine has declared a dividend amounting to 33,000*l.*, or 10*l.* per share. A second similar dividend is expected, will be declared in January. The Burnt Mine has also paid another dividend of 5*l.* on the original 5*l.* shares, being the 50*th* cent of 10*l.* per cent. that has been now paid out of the profits. The first dividend was paid on a practical scale for reducing ore to its base metal process have been completed at the New Cornwall Mine, and a company is in process of formation for erecting more extensive works at other mines. —*Edin. and Sibbald's Circular*, Oct. 27.

NORTH WREY.—Thos. Kemp, Dec. 18; The ground in the
grass; the leading part of lode is about 2 feet wide, composed of black, white, green,

stones of copper ore. In No. 1 winze, in bottom of the 110, east of American shaft, and about 5 fathoms below the 130 end, the lode is worth 15s. per fathom for copper ore. WHEAL MORRIS.—J. Andrews, Dec. 15: At our setting to-day we let the following bargains:—The Cromore engine-shaft to sink below the 25, by nine men, at 26s. per fathom. The 35 cross-cut to drive south of said shaft, by six men, at 9s. per fathom. The 15 cross-cut to drive south of ditto, by two men, at 9s. per fathom; in this end we have driven through the bar of capel referred to in my last report, and are in granite again; the ground is of much the same character as it was before we cut the capel. Carter's shaft to sink below the 25, by nine men, at 36s. per fathom. We have set to the men in the 25, east of said shaft, on No. 4 lode, to cut through the lode so as to have the drive on the south side of the lode, at per bar 2s. 10s.; our object for doing this is the lode being large, and the north part being poor, with a leader on the south part of the lode, 6 in. wide, carrying good work for tin, consequently by driving the south side of the lode we can take the leader down, and let the coarse north part remain. The 15 end, east of Carter's shaft, on No. 3 lode, is let for four men, at 5s. 10s. per fathom; at this point we have cut the lode east of cross-course; it is about 1 ft. wide, consisting of quartz, peach, prion, and saving work for tin—a kindly lode.

WHEAL MORRIS.—W. R. Jones, Dec. 1: In conformity with your request, I have carefully inspected the above mine, and hand you my report of the same. The Cromore engine-shaft has been sunk 50 fms. below surface perpendicularly; no lode in it during the last 15 fathoms sunk through. The stratum has gradually become more congenial for mineral deposits, and is so much improved that every stray branch met with contains beautiful rich spots of copper ore, and the faces of the rock have a green oxide of copper about them—in fact, the ground is so highly mineralized that good results may reasonably be expected here. The 35 cross-cut has been driven south 10 fms., but no lode cut yet. The 15 cross-cut has been driven south of same shaft, and intersected a branch 6 in. wide, with good spots of yellow copper ore in it. Carter's shaft has been sunk 8 ft. below the 25; the strata in this shaft is of a very pleasing character, and from present appearances will be very conducive in giving large deposits of tin and copper ore in depth. At the 25 a cross-cut has been driven south 4 fms., and intersected No. 4 lode, which has been driven on east 6 fms.; it is 3 ft. wide; 14 fms. of the south part from assay is worth 60s. per ton—18s. 10s. per fm. An average sample taken for 4 fms. in length behind the present end from assay is worth 60s. per ton—18s. 10s. per fm. The 15 has been driven east of cross-course 30 fms. on No. 3 lode, and intersected the cross-course, but have not cut the lode east of cross-course; 7 fathoms west of this cross-course we cut into it 20 inches; the first 10 in. is good work for tin, and according to assay is worth 13s. 10s. per fm.; the other part of the lode is tinny throughout. I would strongly recommend you to put six men in the 25, on No. 4 lode, east of Carter's shaft, and drive on it with as little delay as possible, and at the same time cross-cut north and cut No. 3 lode at this level, and drive east on it; by so doing there is every probability of laying open a good and profitable piece of tin ground. I would also recommend you to clear out and repair the 15, east of Carter's shaft, on No. 4 lode; also to sink a winze in the old men's workings below the adit level, and communicate this with the 15; I think if these points are carried out, and the lodes that are standing in the different levels stripped down, and carefully conditioned when taken down, it will greatly assist you in developing the resources of the mine. Taking into consideration the gradual improvement in the strata from the adit to the present bottom of the mine, with the improvement in the lodes, it is my opinion that Wheal Morris is one of the best speculations in the county, and if properly managed will turn out to be very remunerative to the shareholders.

WHEAL SIDNEY.—W. Edwards, Dec. 18: The lode in the 60 fm. level end east has continued to improve; it has become much larger, with occasional rich stones of tin ore, the whole being stamping work. I consider this a corroboration of the opinion I have expressed, that we are likely to meet with the rich shutes of tin seen in the shallow parts of the mine, considerably eastward of our main operations. There is a great deal of water coming from this end, and the eastern shallow workings of the ancient adit to be drained by it, which I think a most important indication. In the 60 fathom level end west as yet there is no change to notice, except an increase of water. In the 25, west of the diagonal shaft, the lode has also improved. There are 24 men stopping below the 46, and there is no alteration to report in the average yield of the ore. We shall send samples of about 10 tons of tin within a few days.

WHEAL UNITY CONSOLS.—Wm. H. Reynolds, Dec. 16: In the 50 south we are driving by the side of the counter, and shall cut into this lode in a few days hence. In the 30 north, west of engine lode, we are opening on a part of the counter, which has spots of ore in it, and is looking very promising. The 72 is not yet in fork, having stopped 48 hours at the end of last week, to connect the flat-rods to the new balance bob. The flat-rods from the engine to the new shaft, on Rosewarne Consols lode, will be ready to work by the end of this week, when we shall resume sinking the shaft.

WORVAS DOWNS.—R. Harry, Dec. 17: The water is in fork to the bottom of the 60, but in consequence of an accumulation of old timber and rubbish in the pit we have not yet been able to examine the level; we hope, however, to do so in a day or two, when I shall be able to say something of the appearance of the lode. During the past week the stopes in back of the 50 west have a little declined in value, which we hope is only temporary. The winze in the bottom of the 40 west, on the counter, is set for four men on tribute at 4s. 10s.; the lode here is very much improved in the past week, and from present appearances the men will get good wages. The carbons in the deep adit, and the stopes over the 50 east, are looking much the same as last week. Our dressing operations are in regular progress, and we hope to have a good parcel of tin for sale in about a fortnight.

YARNER.—R. Barkell, Dec. 17: The engine-shaft is in regular course of sinking below the 40. The 40 west is letting out more water; the lode is large, but not of much value. The 40 east of winze, has fallen off in value, but the lode is looking promising for improving again. The two stopes in the bottom of the 30 never looked better, producing 3 tons per fm. each. The 30 east, on north lode, is still producing a little ore.

In the Journal of Dec. 6 we referred to the sale of the celebrated Risen Colliery having been entrusted by the Master of the Rolls to Messrs. Fuller and Horsey, and on Tuesday the sale took place. The property but a few years since sold for 130,000l., but, owing to a trespass having thrown the affairs into Chancery, the sale of the colliery, together with the leasehold, freehold, and copyhold land above, had been ordered by the Court. The property was submitted for sale in March last the Court of Chancery had, in due course, placed a reserve, in the face of which no bid whatever was made. The reserve, placed at 100,000l., was the cause of the Chancery proceedings might be attributed almost entirely to want of management, the ground trespassed upon not being included in the grant. It would also be remembered that a very severe explosion took place in the colliery, which he had no doubt was likewise the result of carelessness. Through this latter casualty the colliers had demanded extra pay for getting the coal, which extra money was at present being paid, though probably when the workings were made thoroughly safe normal prices could be returned to. The property was now offered without any reserve whatever, and would be knocked down to the highest bidder. Tenders had been sent in to the Steam Navigation Company, which had taken the coal for some years past, and the result would be known on Wednesday; but whether favourable or unfavourable was comparatively immaterial, inasmuch as the coal was one that perfectly suited any hot climate, and one which was, consequently, sure to enjoy an excellent demand at all times. As shown in our notice of the property already referred to, the colliery and surface lands should have realised 100,000l., and Mr. Greenwell, the well-known mining engineer, calculated, allowing really extravagant interest upon the investment, that it should have fetched 88,000l., yet such is the uncertainty of forced sales that the first bid was but 25,000l., from which there was but a slow advance to 38,000l., at which the entire lot was knocked down to Mr. Murrill. That the purchaser has made an excellent bargain certainly cannot be doubted, yet, but for the judgment and ability of the auctioneer, there can be little doubt that a far smaller sum would have been obtained.

GOLD IN WALES.

EAST CLOGAU.—The St. David's lode is reported to have considerably improved. In the St. James's lode visible gold has been traced. The new lode (called St. John's), the development of which has been recently commenced, presents favourable indications.

ST. DAVID'S.—A considerable improvement is said to have taken place in the lode, which is now yielding good quality silver-lead, and about 9 tons per fathom; gold is found with the lead, and this is considered an important discovery. It has been ascertained that the water-power upon the mine is ample for all purposes.

NORTH RHINE COPPER MINING COMPANY OF SOUTH AUSTRALIA.

The following report will be presented to the proprietors at the fourth annual general meeting:—

The directors beg to submit to the shareholders, at this the fourth annual general meeting of the company, a statement of accounts from Aug. 20, 1861, to Aug. 30, 1862; the colonial statement of accounts from the commencement of the company to March 31, 1862; and a general balance-sheet. It will be observed that the total amount of expenditure during the financial year was 5565s. 17s. 6d., which is nearly 1000s. less than the preceding year; and it will also be seen, from the accounts annexed, that on Aug. 30 last a balance of 4103s. 15s. 10d. remained in hand, in addition to an amount of 1044s. 7s. 6d. due on calls, the greater portion of which has since been received and placed to the credit of the company. The colonial balance-sheet annexed has been duly audited by Mr. P. G. Harris, auditor to the Corporation of Adelaide, and certified as being correct. Mr. James Trenow has audited the statement of receipts and expenditure, and certified as to their correctness. With respect to the progress of operations, Capt. Barkia reports that, down to the date of our last advice from the colony, the prospects continued encouraging. Your directors still retain their good opinion of the mine, the more so as Capt. Barkia has stated that he "has not the shadow of a doubt but the main lode will yield a large quantity of copper ore." In his September report he repeats:—"The lode is likely to make a large quantity of ore between the 43 and 60." The directors being desirous of giving the shareholders the same materials as they themselves possess for forming a judgment on the position and prospects of your mineral property, have printed in a separate form all the principal evidence which bears upon the subject, and they invite your careful consideration to the accompanying statement. The company's two sections of land in the Wallaroo district, at York's Peninsula, have, by the advice of the colonial committee, been abandoned, in consequence of the several trials as to their mineral worth having proved unsatisfactory.

WEATHER PREDICTIONS.

[Mr. Shepherd enters into a lengthened detail, in reply to the remarks of our North-umbrian Correspondent in last week's Journal—stating many instances of his successful predictions, and showing the utility of his prognostications,—but as we are not desirous of prolonging a controversy on the subject, and adverse to creating a sore feeling by adverse comments, we have ceased altogether his prefatory remarks.]

With reference to the weather for the coming week, strong winds will occur about the 21st, 22d, 24th, 25th, and 28th. With the exception of a few light frosts, the weather will be generally mild, but rather unsettled.

26, Throgmorton-street, Dec. 18.

G. SHEPHERD, C.E.,
Author of "The Climate of England."

* With the Journal of this week is published a SUPPLEMENTAL SHEET, in which appears a Plan of the Walker Colliery, in explanation of the Remarks of Mr. Matthias Dunn respecting the late Explosion—the Inquest on the sufferers by the Edmund's Main Colliery Explosion—Progress of Mining on the Pacific Coast—the Mineral Resources of the Territories of the United States—Foreign Mining and Metallurgy—North of England Institute of Engineers—Meeting of Companies: West Caradon, Trevenen and Tremeneere, Great Wheel Vor, Wheel Union, Great South Tolgus, and Amman Coal Company—Mining Photographs, &c.

* With last week's Journal we gave a SUPPLEMENTAL SHEET, containing Papers on the Processes of Mining on the Pacific Coast—the Geology of Australia—Foreign Mining and Metallurgy—Ancient Geology—Mining Photographs—Meetings of Companies: the Australian, St. Just United, Holmbush, West Par, Caradon Consols, and the Lower Taldraws.—The Copper and Alkali Trades—Gold in New Zealand—Oxygen Gas—Noxious Vapours from Alkali Works—Lining Puddling Furnaces—Safety Fuse—New Lubricating Grease from Coal Tar—Icelandic Fuel—A Steel Merchant Ship, &c., &c.

* With the Journal of Dec. 6 was given a SUPPLEMENTAL SHEET, which contains a Plan of the Devon Great Consols District; On Peat Fuel; Meetings of the Alten, Prosper United, and Tincroft Mining Companies; Foreign Mining Reports; Plans and Particulars of the North Pool Mining District, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Dec. 19, 1862.

COPPER.		£ s. d.	BRASS.		Per lb.
Best selected.....	ton	101 0 0	Sheets.....	10 1/2 d.	—
Tough cake.....	"	98 0 0	Wire.....	9 1/2 d.	—
File.....	"	98 0 0	Tubes.....	11 1/2 d.	—
Burra Burra.....	"	98 0 0-99 0 0	FOREIGN STEEL.		
Copiapue.....	"	—	Swedish, in kegs (rolled) 15	0 0-15 10 0	
Copper wire.....	"	1 1/4	" (hammered) 16	0 0-16 0	
ditto tubes.....	"	0 1	ditto in fagots.....	16 10 0-18 0	
Sheathing & bolts per ton	105	0 0	English, Spring.....	18 0 0-20 0 0	
Bottoms.....	110	0 0	Bessemer's Engineers' Tool	44 0 0	
Old (Exchange).....	91	0 0	Spindle.....	30 0 0	
IRON.			QUICKSILVER.....	7 0 0 p. bottle	
Bars, Welsh, in London.....	6 10	0 0	SILVER.		
ditto, to arrive.....	6 10	0 0-6 15 0	Foreign.....	18 0 0-18 5 0	
Nail rods.....	7 0	0 0	To arrive.....	18 0 0-18 5 0	
" Stafford, in London	7 6	7 10 0	SING.		
Bars.....	7 5	0 0-8 0 0	In sheets.....	23 5 0-23 10 0	
Hoops.....	8 5	0 0-8 10 0	TIN.		
Sheet, single.....	9 0	0 0-9 10 0	English, blocks.....	115 0 0	
Pig, No. 1, in Wales.....	4 0	0 0-4 5 0	ditto, bars (in barrels).....	116 0 0	
Redned metal, ditto.....	4 0	0 0-4 5 0	ditto, refined.....	120 0 0	
Bars, common, ditto.....	5 10	0 0	Banca.....	119 0 0	
ditto, merchant, in Tees	6 10	0 0	Straita.....	117 0 0-118 0 0	
ditto, railway, in Wales	5 12	6 5 15 0	TIN-PLATE.*		
ditto, Swed. in London	11 10	0 0-12 10 0	IC Charcoal, 1st qua. p. bx. 1	8 0-1 8 6	
To arrive.....	11 15	0 0-12 10 0	IX Ditto 1st quality.....	1 14 0-1 14 6	
Pig, No. 1, in Clyde.....	2 15	6 2 18 0	IC Ditto 2d quality.....	1 4 6-1 6 0	
ditto, C.O.B. in Tees.....	2 8	0 0-2 10 0	IX Ditto 3d quality.....	1 10 0-1 12 6	
Ditto, forge, C.O.B. in Tees	2 0	0 0	IX Coke.....	1 2 6-1 3 0	
Staffordshire Forge Pig.....	—	—	IX Ditto.....	1 8 6-1 9 0	
Welsh Forge Pig.....	—	—	Canada plates.....	10 12 0-10 15 0	
LEAD.			In London; 20s. less at the works.		
English Pig.....	21 5	0 0-22 0 0	Yellow Metal Sheathing.....	p. lb. 9 1/2 d.	
Ditto sheet.....	21 15	0 0	Sheets.....	p. lb. 9 1/2 d.-9 3/4 d.	
Ditto rod.....	22 0	0 0	Indian Charcoal Pigs.....	6 12 6-6 15 0	
Ditto white.....	28 10	0 0-30 0 0	In London.....	6 12 6-6 15 0	
Ditto patent shot.....	23 0	0 0	* At the works, 1s. to 1s. 6d. per box less.		
Ditto shot.....	20 5	0 0-20 10 0			

REMARKS.—So near as we are now approaching to the close of the year, it is hardly to be expected that much business will be doing, but the last week or so has been, we think, duller than is usual, even at this time of the year. Only very few orders are being given out for shipment; these few invariably for very small quantities, and home consumers are loth to increase their stocks, having for the most part sufficient on hand to carry them over this month. The India, China, and Australian mails not coming to hand helps to make the inactivity more general, as doubtless they contained the usual quantum of metal orders, which would have enlivened our market for some days at least. The Bombay mail, which arrived yesterday, has brought but a limited quantity of orders.

English manufactured remains without change; there are sellers to be found at 10s. 6d. but even at this low figure buyers are not to be tempted into operating beyond immediate requirements. The consequence is that many makers are getting very short of work. The approaching Christmas holidays will, if this state of things continues, be a great relief to the employers as the employed, for, in an immense trade like this, a partial cessation of work will always impart a greater appearance of firmness to the market. The orders of even the dullest week in the year, if allowed to accumulate, would, when given out, cause some considerable animation. Cake, tile, and ingot quiet, and easily obtainable under fixed rates. All descriptions of foreign very slow of sale; Burra Burra, 98s. to 98l. 10s.; Kapunda, 99s. to 100s.; Chili and Spanish, 88s.

YELLOW METAL.—Market slightly firmer in tone, braziers sheets not to be purchased under 8 1/2d.; sheathing, 8 1/2d.

IRON.—Railway bars not much enquired for; price remains quiet, at 5s. 12s. 6d. in Wales; merchant bars in very limited demand, at 5s. 17s. 6d. at the works, and 6s. 7s. 6d. to 6s. 10s. delivered f.o.b. in London. Staffordshire makes are in brisk demand, especially sheets; sellers adhere firmly to quotations. In Swedish bars there is less doing; sellers of ordinary specifications at 11s. 5s. to 11s. 10s.; Scotch pigs declined, early in the week, to 5s. 3s. 3d., cash. A large business done at 5s. 6d., three months, caused the market to stiffen to 5s. 8d. cash, market closing 5s. 4s. m.n.

SPELTER.—During the past week there has been rather more doing in this metal, and sellers have advanced their quotations to 18s. to 18s. 2s. 6d. Sales of WH in Hull are reported at 18s. 10s.

ZINC in active demand, at 23s. 5s.

LEAD.—English pig is more enquired for, and an advance of 5s. per ton on ordinary quality is fairly sustained. The stocks held here are now rather low; 21s. 5s. for common, and 22s. for WB brand. Sheets and shot very quiet. In pipe and bars a little more is doing. Spanish pig, 20s. 10s.

TIN.—For English descriptions there is but slight demand; buyers can get supplied freely at 20s. per ton below fixed price. Foreign is more enquired for. Fine Straits has realised 117s. cash; Banca, 119.

TIN-PLATES continue in fair request, at 22s. 6d. for IC coke.

STEEL.—Swedish remains quiet, at quotations.

BOSTON, DEC. 1.—We notice cargo sales of Pictou coal at \$7 50 c., and Sydney at \$6 50 c. per ton. Anthracite has been in steady retail demand, at \$9 per ton. Pig-iron is firm, and in steady demand for small lots. Sales of Scotch No. 1 at \$36 c.; and American No. 1 at \$35 c. to \$37 c. per ton, cash and six months. In bar iron the sales have been in small lots, at full prices. Russia sheet iron is held at 16 1/2 c. to 17 c. per lb. cash.

NEW YORK, DEC. 3.—The coal market for domestic is well supplied, and prices are without change, although the upward tendency is checked. The mild weather thus far has restricted the consumption greatly, and we are now adding to our stock daily. We quote from yard at \$6 50 c. to \$7 75 c. per ton. In foreign, very little has been done. We hear only of 100 tons of Scotch splint at \$6 50 c. cash. The iron market is rather quiet, but very firm for all kinds, with an upward tendency. Sales of 500 tons light American (Phenix) rails, at \$71 75 c. cash; 500 tons ditto bars, at \$82 50 c.; and 400 tons ditto charcoal billets, at \$120, both four months, deliverable at Philadelphia; sales also of 1500 tons Allegheny No. 3, forges, at \$30, deliverable next season, and 50 tons ditto No. 4 wire rods, at \$100, both cash.

BALTIMORE, DEC. 4.—The prices of fuel are higher now than at any period for many years past, and the indications now are that there will be a further advance as soon as the cold weather begins. All kinds of semi-bituminous and anthracite coals, for family use, sell at \$5 per ton, while the nut sizes sell at \$6 50 c. per ton. Cumber and coal is in demand, but there is no supply; the lump coal, for family use, sells for \$10 per ton, and run of mine at \$9 per ton.

COAL MARKET.—On Monday the arrival of 115 fresh ships caused a dull market. Household coals maintained the price of Friday last, but Hartley's submitted to a further reduction of 6d. per ton. Manufacturers' also a shade lower. Best house coal, 18s. to 18s. 6d.; seconds, 15s. 9d. to 16s. 6d.; Hartley's, 14s. to 15s.; manufacturers' 13s. to 15s. per ton. On Wednesday there were 37 arrivals. The tone of the market was heavy for all descriptions of coal, at Monday's prices.—On Friday there were 42 arrivals. The business in house coal continued dull, at last day's quotations. Hartley's a shade lower; manufacturers' without alteration. Hetton Wallsend, 18s. 6d.; Lambton Wallsend, 18s.; Braddyl's Hetton Wallsend, 17s.; Eden Main, 16s. 3d.; Gosforth Wallsend, 15s. 9d.; Harton Wallsend, 15s. 9d.; Hasting's Hartley, 14s. 9d.; West Hartley,

14s. 9d.; Lambert's West Hartley, 14s. 6d. per ton.: 15 cargoes unsold—165 ships at sea.

The settlement of the fortnightly account, which commenced in the MINING SHARE MARKET on Monday, has occupied the attention of dealers during the whole week, and has daily, more or less, interfered with general business. To the present time, we believe, a large number of shares sold for the account in East Caradon have not been delivered, and cannot be obtained, and the result is a great rise in price, and a number of disasters to those "bears" who sell what they do not possess, in order to injure the property of the bona fide shareholder, and bring discredit on legitimate mining. On Monday East Caradon shares opened at 40 to 41; Tuesday, advanced to 42 1/2, 42 1/2; Wednesday, advanced to 44, and declined to 42 1/2; Thursday, 44 to 44 1/2, and left off 44 to 44 1/2; Friday, opened at 44 to 44 1/2, and leave off 44 to 44 1/2. The latest official report values the 70 east, on the caunter lode, at 45s. per fm.; the 70 west, 50s. per fm.; the 60 east, 15s. to 20s. per fm.; the 50 west, 50s. per fm.; the new lode, in the 60, 25s. per fm. In addition to this, Capt. Secombe requests us also to state that he considers, from the present valuation and rate of driving the different levels on the course of the lode, he is adding to the reserves at least 2000l. worth per month, besides keeping up the present samplings. With reference to the mine being in a shallow district, one of the reasons given for depreciating the property, we are glad to see that the agents of South Caradon—a mine which has already paid nearly 200,000l. in dividends—have come forward with the result of their practical experience; and from their letter we learn that their workings are now in the heart of the Caradon Hill, and one of the north lodes looking better than for many years past. This lode in the 40 was worth 5 tons per fm.; in the 90, 6 tons per fathom; in the 100, 8 tons per fathom. The bottom level (190 fathoms from surface) is worth 7 tons per fathom. East Caradon is at present only about 90 fms. deep from surface; and a cross-cut is being driven in the 50, in a beautiful channel of ground, to cut the north lode referred to by the South Caradon agents. Cargill shares seem rather more quiet, at 40 to 45; Carn Camborne, 15s. to 16s. West Seton, 29s. to 29 1/2; at the meeting, on Tuesday, a dividend of 5s. per share was declared, leaving 910s. 9s. in hand; the profit on the two months was 2237s. 10s. 6d., and the sales made and to come into the next account are 6315s. 4s. The mine has improved; the ends, in the aggregate, are worth 23 tons of copper ore per fathom, and 36s. for tin; the stopes are worth 54 tons per fathom; the winzes are worth 4 tons per fm.; at the previous meeting, in October, the ends were only worth 11 1/2 tons per fm. South Seton shares seem in good request at 25 to 30, but shares very difficult to obtain. Marke Vley, 8s. to 9s.; Clifford Amalgamated, 20 to 22. Cook's Kitchen shares have advanced to 31, 32. Drake Walls, 17s. 6d. to 20s. East Gunnis Lake and South Bedford, 1 1/2 to 1 3/4, and shares enquired for. East Wheel Grenville shares flat at 46s. to 48s. Wheel Grenville shares also flat at 4 1/2 to 4 3/4, without any change at the mine. East Rosewarne, 1 1/2 to 2 1/4. North Crofty shares, after being very flat at 4 1/2, sellers, rose on Thursday, and leave off 5 to 5 1/2; the 170 west is reported as having improved to 20s. per fathom; and in the 180, east of slide, a lode has been intersected, supposed to be part of Reeve's lode, producing rich tin, but not yet opened on sufficiently to value. North Roskear, 38 to 38 1/2; the 184 fm. level is nearly completed to Pearce's shaft, in a good course of copper ore, worth 50s. per fathom; the sinking of the shaft below the 184 will be resumed on a good lode in about a month. East Russell, 3 to 3 1/2; Grambler and St. Aubyn, 15 to 17. Great Wheel Fortune, 29s. to 30s.; and in demand. New Seton, 13s. to 14s.; Providence Mines, 42 to 44; Rosewall Hill and Ransom United, 3 to 3 1/2; Sorridge Consols, 9s. to 10s.; South Basset, 8 to 8 1/2; South Frances, 9s. to 9 1/2; South Tolgus, 40 to 42; Stray Park, 41 to 43; Tincroft, 13 to 13 1/2; Trelyon Consols, 10 to 12; West Trevelyan, 8s. to 10s.; Wheel Basset, 80 to 85. Wheel Union, 5 1/2 to 6; at the meeting the accounts showed a balance against the mine of 381s. 1s. 6d., and a call of 4s. per share was made. East Carn Brea, 1 1/2 to 1 3/4; the 60 west, on the middle lode, is producing 2 1/2 tons per fathom; the winze is producing 3 tons per fm. Great South Tolgus, 7 to 7 1/2; at the meeting the balance in favour of the mine was 1051s. 19s.; the lode in Lyle's shaft, below the 140, is worth 100s. per fm.; the 140 west is worth 20s. per fm., and the mine generally improving. North Basset, 2 1/2 to 2 3/4; at the meeting the accounts showed a balance against the mine of 171s. 3s. 2d., and a call of 3s. per share was made. Wheel Grylls, 3s. to 3s. 3d. Wheel Harriett shares have been in demand all the week at 32s. 6d. to 35s., and leave off 37s. to 39s. Wheel Kitty (Lelant), 7 1/2 to 8; Wheel Ludcott, 7 1/2 to 9; Wheel Margaret, 40 to 42; Wheel Mary Ann, 14 to 15; Wheel Seton, 180 to 185; Wheel Unity, 11s. to 13s. Worvas Downs, 5 to 6; a rich discovery of tin has been reported in the 40, on the caunter lode, worth 40s. per fm. for tin. The great Carbona is looking well, and improving, and the mine said to be paying costs. Rosewarne Consols, 3 to 3 1/2; the mine looks well, and the 80 opening out a good run of ore ground. Lady Bertha, 25s. to 27s.; North Trekerby, 3 1/2 to 4; North Downs, 2 1/2 to 2 3/4. Great Retallack, 14s. to 16s.; at the meeting the accounts showed a balance against the company, charging up everything to the end of November, of 659s. 9s. 1d., and a call of 2s. per share was made; 95 tons of blende were sold on Friday at 2s. 12s. 6d. per ton, and about 175 tons promised for the next month, while the shaft looks favourable for copper in depth. Wheel Crebor, 8s. to 9s.; Bottle Hill, 10s. to 12s. West Caradon, 28 to 30; at the meeting the accounts showed a balance in favour of the mine of 4517s. 6s. 8d., and no dividend was declared. Wheel Uny shares have been rather in demand, and leave off 7 1/2 to 8; at the meeting, on Tuesday, the accounts showed a balance of 18s. 1s. 4d. in favour of the mine, and the report very satisfactory both for copper and tin; the engine-shaft, on the tin lode, is down 8 fathoms below the 100, and worth 18s. per fathom for 14 feet, and sinking at 35s. per fathom; the 100 is worth 25s. per fathom. During the past quarter 79 tons of copper, realising 579s. 15s., have been sold, and about the same quantity expected for the next quarter; of tin about 50 tons was raised in 11 weeks, and 60 tons expected in the next quarter.

The East Cambrian Gold Mining Company have already received a large number of applications for shares, and it is stated that an early day will be named for the allotment. Mr. John H. Clement, one of the best authorities upon gold we have, reports that he adheres to the opinion formed of the sett in 1846, that with sufficient capital and judicious management very profitable results can be obtained, and that it will yield the palm to none in the county in produce of gold, silver, and lead; his recent visits have added confirmations in every way satisfactory. Capt. Thomas Fann, late manager of the Almaden Mines, observes that there has been so much said about the chances of success in favour of gold mining in Wales, that it only remains for him to endorse the opinions and views of such able writers, believing the property to be as valuable as those in operation. Captain Parry, of the Vigra and Clogau Mines, and Mr. Beardman also report upon the property; but, perhaps, the most important evidence is the assay ticket of Mr. R. W. Byers, which shows that the Hafod-y-Morfa lead ore, as dressed in the ordinary way for market yields 69s. per cent. of lead, and 8 ozs. 3 dwts. 8 grs. of gold, and 11 ozs. 8 dwts. 16 grs. of silver to the ton of ore, which results were published in 1855, before the property was thought of as a gold mine. There are important facts, coupled with the circumstances that a thorough investigation has been made by the directors, and the terms of purchase are highly favourable.

The Vistula Colliery Company, with a capital of 60,000l., in shares of 5s. each, has just been constituted under the Companies Act, 1862, for working a very valuable coal property on the left bank of the Premea, which is a navigable branch of the Vistula, 2440 English acres in extent, and calculated to contain 573,000,000 tons of coal, the aggregate thickness of the coal being 41 yards, less 2 in., and all the seams being near the surface. An elaborate report upon the concessions held by the company has been prepared by Mr. A. M. Hurst. From this report it appears that the property is in the centre of well-known and actually worked collieries, whilst the fact of English coal being sold at Dantzic and higher up the Vistula of itself indicates the great necessity of coal

opinion is fully confirmed by Mr. Franz Rath, the Government Mine Surveyor, who has also reported upon the property. A profit of 25 per cent. per annum is expected to commence at once, and as soon as the mine is in full working order this will be considerably increased.

On the Stock Exchange transactions in Mining Shares have been to a large extent during the week. The following prices were officially recorded in British Mining Shares:—Cambrian, 1½, 1½, 1½; Devon Great Consols, 505, 500; East Caradon, 40, 41, 42, 43, 44, 44½; Great South Tolgus, 7½, 7½, 7½; Tincroft, 12½, 13½; Wheel Ludcott, 9½, 9½, 10, 9½; East Basset, 51½, 52; Hingston Down, 2½; New Seton, 140; North Wheal Crofty, 4½, 5, 5½; Providence, 41, 41½; East Carn Brea, 11, 11½, 11½, 11½; Marke Valley, 9; Grenville, 5, 4½; Margaret, 40½, 41½; South Wheal Frances, 91; West Basset, 13½; Wheal Seton, 180; North Downs, 2½. In Colonial Mining Shares the prices were:—Scottish Australian, 1½, 1½; Kapunda, 1½; Dun Mountain, 4½; Vancouver Coal, 4½; Port Phillip, 1½; Worthing, 1½; Yudanamatana, 3½. In Foreign Mining Shares the prices were:—East del Rey, 1½, 1½; Monte Aureo, 2; St. John del Rey, 59½, 58½, 53, 52, 54, 53½; Fortuna, 4, 4½; Santa Barbara, 14½; United Mexican, 4½, 4½, 4½.

The closing quotations for shares in new undertakings were:—London and Northern Bank, par to ½ prem.; English and Irish Bank, ½ dis. to par; Bank of Scinde, Panjab, and Delhi, par to ½ prem.; British and South Wales Zinc Smelting, ½, ½ prem.; Société Financière of Egypt, ½, ½ prem.; London, Birmingham, and South Staffordshire Bank, ½, ½ prem.; Oil Wells of Canada, ½, ½ prem.; Western Australian Cotton, ½, ½ prem.; St. Cathbert's, ½, ½ prem.; Nova Scotia, ½, ½ prem.; Dolfrwynog, ½ dis. to ½ pm.; East Cambrian, ½, ½ pm.; Devon and Great Bedford, ½, ½ pm.

IRISH MINE SHARE MARKET.—Transactions on our Exchange have been much more numerous in mines than in any other securities, either of railways or banks, in which the only important change from last week's prices is a fall of 10s. on shares of the Union Bank, which leave off at 9½, 15s. (12½ paid). On the other hand, there is an improvement in the quotations of mine shares in every instance where they have been dealt in. Wicklow Copper shares (5½ paid) have changed hands at an advance demanded by holders to 38½, 10s., and leave off firm. A considerable amount of business has been done in Mining Company of Ireland Shares (7½ paid), with prices ranging from 19½, 10s. to 19½, 15s., at which they are now in demand, being an improvement of 2s. 6d. per share from last week. This company will hold their next half-yearly general meeting of shareholders on the first of next month. Carysfort shares, of both descriptions, have improved 6d. per share. Connors shares (20s. paid) were done at 23s., and General Mining Company for Ireland shares (4½ paid) rose from 5½, 2s. 6d. to 5½, 7s. 6d., at which price, however, more might be had. Carberry (Gurtavally) and Castledward shares are not in demand. From Dhuirde, Burdon and Carron Mines we have most favourable accounts.

At the Truro Ticketing, on Thursday, 5078 tons of ore were sold, realising 24,448 7s. 6d. The particulars of the sale were:—Average standard 126½, average produce 6½, average price per ton, 4½, 16s.; quantity of fine copper, 302 tons 17 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Nov. 18	6246	125 10 0	5½	4 9 0	77 12 0
Dec. 1	3602	118 2 0	6½	5 4 6	77 8 6
Dec. 4	3645	121 10 0	6½	4 17 6	79 16 0
Dec. 11	2273	118 7 0	7½	5 19 6	81 0 0
Dec. 18	5078	126 16 0	6	4 16 0	80 15 0

Compared with last week's sale there has been a slight advance. Compared with the corresponding sale of last month the advance has been in the standard 2½, and in price per ton of ore about 2s. 6d.

At the Swansea Ticketing, on Tuesday, 1103 tons of ore were sold, realising 13,857 9s. The particulars of the sale were:—Average standard, 101½, average produce, 14½; average price per ton, 12½, 11s.; quantity of fine copper, 169 tons 19 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Nov. 18	1408	100 9 0	15	12 16 6	85 11 0
Dec. 2	1645	97 11 0	15½	15 19 6	85 12 6
Dec. 16	1103	101 4 0	14½	12 11 0	81 11 6

Compared with the last two sales, the decline has been in the standard, 4½, and in the price per ton of ore about 11s. 6d. Of the 1103 tons of ore sold on Tuesday, 643 tons were British ores, which gave an average produce of 12½, and sold at an average standard of 104½, 6s. = 10½, 14s. per ton of ore; the remaining 460 tons were foreign ores, which gave an average produce of 17½, and sold at an average standard of 99½, 2s. 6d. = 15½, 3s. 6d. per ton of ore. On Jan. 6 there will be offered for sale about 2186 tons, from Cobre, Cuba, Berehaven, Laxey, Knockmahon, Melbourne, Sweden, Holyford, and elsewhere.

At West Wheal Seton meeting, on Tuesday, the accounts for Sept. and Oct. showed—Balance last audit, 6721. 18s. 6d.; copper ore sold, 6446½, 2s. 3d. = 1191. 9s. 9d.—Mine cost, merchants' bills, and sundries, 4982. 11s. 9d.; leaving credit balance, 2910. 10s. The profit on the two months' working was 2377. 10s. 6d. A dividend, being the fifty-first, of 20000. (5½ per share) was declared, and 9101. 9s. carried to credit of next account. The value of the copper ore sold Nov. and Dec., also to come to the credit of next account, is 6315. 4s. Capt. Charles Thomas, Malachi Bath, and John Jennings reported that the levels are opening up richer ore ground than for several months past.

At the South Exmouth Mine meeting, on Thursday (Mr. W. T. Smith in the chair), the accounts for the quarter ending December 4 showed a net profit of 1461. 9s. 8d., or 2561. 9s. 8d. more than was estimated three months since. The ore sold during the quarter realised 33081. 17s. 2d. A dividend of 12500. (5s. per share) was declared, leaving a balance of 2061. to be carried to the credit of the next account. The quarter's report stated that the samplings had not been short, but had exceeded by 20 tons the estimated quantity stated in last report, the produce for the quarter being 260 tons and they might confidently add their position and prospects were quite as good, and even better, than they were at the last meeting, having more ore ground laid open now than at that time. The total number of hands at present employed is 122. This mine was commenced about 18 months since by Mr. Wescomb (of Exeter) and two or three other gentlemen; during that period all the machinery, offices, and buildings have been erected and paid for, and every liability discharged. Up to the present time 481 tons of ore, 1 q. of ore have been sold, realising the sum of 6197. 4s. 11d., and the mine is at surface about 60 tons more dressed and ready for market. It may be stated that the agent (Capt. J. P. Nicholson) has been presented by the shareholders with a handsome silver tea and coffee service, as an earnest of their appreciation of the efficient and economical manner in which the South Exmouth Mine has been thus far developed.

At the Spearhead Mine meeting, on Dec. 13, the accounts showed a debit balance of 3677. 18s. 9d. Capt. Bennetts and Ellis reported that the mine at this time is in a good state of working, and the operations can be carried on with moderate expense, as the water charges are light, and the bills for materials are not likely to be so heavy in future. The future success principally depends on opening the mine below the 110, and should the ground be found as valuable below that point as above, the prospects will go on from this time improving.

At Great Wheal Badden meeting, on Thursday, the accounts showed a debit balance of 5711. 8s. A call of 5s. per share was made. The committee (through Mr. Pearce) presented a plan, showing the present state of the mine, and a section, showing the position of the silver-lead lode and also in Hill Brothers shaft and the cross-cut, which they submit should be printed and circulated, to accompany and explain their report lately issued, it was resolved that "this be now done, and that the thanks of the meeting be given to Mr. Pearce, for preparing the plan and section."

At the West Caradon Mine meeting, on Wednesday (Mr. A. Harris in the chair), the accounts showed a credit balance of 4517. 6s. 8d. The profit on the two months' working was 27. 10s. 11d. Details in another column.

At the Great South Tolgus Mine meeting, on Thursday (Mr. Clinton in the chair), the accounts, including October cost, showed a credit balance of 10517. 19s. Details in another column.

At Okel Tor Mine general meeting, on Tuesday (Mr. J. M. Thistleton in the chair), the accounts showed a credit balance of 4121. 12s. 11d. The proceedings of the last meeting were confirmed, excepting the erecting of arsenical and copper and silver precipitate works, on account of the authorities of H.R.H. the Prince of Wales not assenting thereto. Mr. Adam Murray's report, together with the agents', was considered to show clearly that such profits will be made as will enable 5s. dividend to be declared at the next meeting. The office of reference is to be at Messrs. A. Murray and Brothers, New-street, Spring-gardens, for which they are to be paid 3s. 6d. per month.

At the Great Wheal Vor United Mines meeting, on Wednesday (Mr. George Nokes in the chair), the supplemental account made up to the present time showed assets over liabilities of 19447. 18s. 10d. Details in another column.

At the Amman Coal Company meeting, on Tuesday (Sir Edwin Pearson in the chair), it was stated that the Nine-feet as well as the Six-feet seams had been won, and that steps had been taken to increase the output of coal as rapidly as safety would admit. Sir Edwin Pearson and Mr. J. E. Panter were re-elected directors, and Mr. J. Fisher auditor—a professional auditor to be appointed as his colleague.

At the Trevenen and Tremerehine Mine meeting, on Monday, (Col. Bland in the chair), the accounts, including October cost, showed a debit balance of 461. 15s., exclusive of the arrears of call, which amounted to 321. 15s. The report of the agents and the details of the meeting appear in another column.

At the Wheal Union meeting, on Tuesday (Mr. W. A. Thomas in the chair), the accounts, including October cost, showed a debit balance of 2811. 1s. 6d. A call of 4s. per share was made. Details in another column.

At Carn Galver Mine meeting, on Dec. 11, the accounts for the quarter ending September showed a debit balance of 891. 5s. 5d. The report stated that the amount of the call made at the last quarterly meeting, when fully paid up (1892, being 10 annuities), would leave a credit balance from that quarter of 132½, which added to the credit balance of 102½, would show an excess of expenditure over income of 102½. There was, however, a set-off of somewhat over this amount of tin that requires to pass the mining-house, but which could not be effected in time for the present account; and

about an equal amount expended in 40 fms. of pumps, rods, and fittings, which form 40 much permanent work.

At Great Retallack Mine meeting, yesterday, the accounts, including November cost, showed a balance of liabilities over assets of 6591. 9s. 8d. A call of 2s. per share was made.

At East Jane special general meeting, held at the offices, on Wednesday last, at which a very large number of the shares were represented, resolutions were passed removing the present manager, and appointing a resident agent. The appointment of a superintending agent was postponed for a month, to give time for enquiry, and to obtain the best person available to fill the office. The report of the mine was satisfactory.

At the Wheal Uny meeting, on Tuesday (Mr. Hinds in the chair), the accounts for the three months ending with costs for October showed a credit balance of 181. 1s. 4d. The agents' report stated that from the north part they had within the last three months raised 79 tons of copper ore, which realised 5791. 15s.; and, judging from present appearances, they hoped to be able to do the same in the ensuing quarter. In the past eleven weeks they had raised about 50 tons of black tin, and hoped to raise about 60 tons in the next quarter. Owing to the breakage of the bob at the stamps engine, and the fixing of a new plunger-lift for drawing water for dressing purposes, the cost for this account had been increased by 2501. On the tin lode the prospects were the same as they had been for some time past; but the improvement which had taken place in the 58 west (No. 3 shaft), and the character of the lode in other points, led them to believe that it would become more productive in depth.

The directors of the Provincial Bank of Ireland have declared a half-yearly dividend at the rate of 4 per cent., and also an extraordinary dividend of 30s. on each 100l. share, and 12s. on each 10l. share.

LEEDS, Dec. 17.—In Mining Shares a moderate amount of business has been done, and quotations have been well maintained. Cornubia and Heden Moor shares are in request at advanced rates, with an upward tendency. The directors of the Cornubia Mine have ordered twelve additional stamps to be erected. It is expected that the returns of tin will soon be very much increased by the energetic and vigorous working of the mine, which, with the additional stamps and machinery, will enable them to dress and prepare the tin in greater quantities for market.—JOHN GLENDHILL AND CO.

LEEDS, Dec. 18.—During the past week there has been a very considerable demand for shares in the Wheal Prudence Mining Company, as well as for Cornubia shares; with these exceptions the market has been quiet.—EDWARD BROOK, Mining Broker, 5, Bank-street.

WINDING-UP MINING COMPANIES.—In the Vice-Chancellor's Court, Mr. Herbert Smith appeared in support of a petition for winding-up the Hockworthy Bridge Consols Mining Company. The works of the company are situated in Devonshire, and a question arose whether the Court of Stannaries had jurisdiction in the matter under a recent statute. The company had not been registered, and that statute provided that for the purpose of a winding-up, an unregistered company should be considered to have been registered in that part of the United Kingdom where its place of business was. The place of business of this company was in the City of London, and, therefore, it would seem that the High Court of Chancery, and not the Stannaries Court, had jurisdiction. It had, however, been engaged in working a mine in Devonshire, and as the jurisdiction of the Stannaries Court had been extended to that county, it was questionable whether that Court ought not to undertake the winding-up. Vice-Chancellor Wood said the petition must stand over, in order that the Vice-Warden of the Stannaries Court might certify under the Act, whether in his opinion the company could be wound-up more advantageously by this Court than by the Stannaries Court. For that purpose the petition had better stand over until next term.

THE ASPHALTUM COMPANY (Limited).—Mr. J. Hutton, of Moorgate-street, has been appointed by Messrs. Gibbs and Tucker, solicitors, of Lothbury, to investigate the accounts of this company, preparatory to filing a bill in Chancery against the directors and others connected with the company.

BANK OF DEPOSIT.—Mr. Jas. Hutton, of Moorgate-street, accountant, has been employed by Mr. C. H. Edmonds, solicitor, of New Inn, on behalf of the creditors' representatives, to investigate the books and accounts of this company.

FIRE AT BOTALLACK MINE.—The steam stamps engine at this mine was burnt on Sunday morning last; of course, all the timber work was consumed. The engine-shaft itself is but little damaged, and the cost of which will not exceed 2501. With the usual energy of Mr. James and his staff, it is hoped that the stamps will be again at work on Christmas Day.

BOILER EXPLOSION.—On Tuesday last a terrible explosion occurred at Carn Brea Mine, by the boiler attached to the stamps-engine bursting with great violence. One man, named Samuel Rodda, a resident of Camborne and carpenter of the mine stamps, was killed, and several others were severely injured. We forbear saying anything of the cause of the accident until the inquest has been held. Another account states:—Carn Brea Mine is the property of a company, and is one of the most extensive, as well as productive, tin and copper mines in the county. It has no less than fourteen large engines connected with it, rearing their immense shafts and flywheels over an extended district. One of these engines is known as the stamps engine; it is of great power, being 32 inches in the cylinder. It is worked by means of four horizontal boilers, placed side by side. It was the most easterly of these which exploded about half-past eight o'clock on Tuesday morning, with a noise so great that it was heard all over the neighbourhood. At the moment of the explosion there were only two persons in the boiler-house—Samuel Rodda, aged 35, the "stamps carpenter," whose duty it was to repair the machinery of the stamps when out of order, and Michael Callen, an Irishman, aged 37. Both these men were standing on a platform in the engine-house, opposite the boilers; neither of the men were actually engaged in work, the Irishman having just entered the place in order to warm himself. On the occurrence of the explosion a large sheet of iron, the front plate of the boiler, was wrenched off and thrown towards Rodda, but did not strike him. The concussion threw him off the platform on which he was standing and down in front of the fourth boiler, and the scalding water flowing out from boiler No. 1 almost instantaneously drowned and scalded the poor man. His body was found, two or three minutes afterwards, lying, face downwards, in several inches of water. Rodda was a very steady man. He leaves a widow and two children, who reside at Camborne. The other man (Callen) was more fortunate. He was standing nearer the door of the engine-house, and appears to have been blown outwards, receiving over him, however, a deluge of boiling water, which has frightfully scalded his face, arms, and legs. He was removed to an adjacent outhouse, and thence to his home in Camborne. There were other casualties of a less serious nature. A boy standing thirty yards from the boiler was struck by a dislodged brick in the ankle, and much hurt, though no bones were broken. Two or three girls at work still further off were also hit by falling stones; one of them, who was struck on the head, being much hurt.

FATAL BOILER EXPLOSION AT OLDHAM.—On Tuesday morning a serious boiler explosion took place at Messrs. Evans, Barker, and Co.'s Hartford Colliery, Lyon Dam, Oldham. A man, named Joel Thornley, who was employed by the engineer to do "little jobs" for him, such as clearing away the ashes from about the boiler furnace, was blown down by the force of the shock, and covered by the debris of the shed. The end of the boiler was driven completely out, and the furnace door torn off, as well as the brick work destroyed. Thornley was extricated as soon as possible, but he had sustained such serious injuries from the steam, boiling water, and the debris, that he died after being removed home. The cause of the explosion has not been ascertained.

THE AUSTRALIAN MINES.—We understand that telegrams are to hand, which state that the reports by the forthcoming mail will represent the general mining prospects as exceedingly favourable. The ship *Murray*, which took out a valuable cargo of mining machinery for the Great Northern, the Yudanamatana, and Cornwall Mines, had arrived safely at Port Adelaide.

PROGRESS OF MINING.—The introductory part will be published next Saturday, and the whole work in a pamphlet as soon after as possible; and those pursuers and secretaries who have not yet furnished statistics, &c., will be kind enough to forward them to Mr. Watson without delay, otherwise they will be omitted.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for Oct. is 31. They have consumed 2008 tons of coal, and lifted 152 million tons of water 10 fms. high. The average duty of the whole is, therefore, 51,100,000 lbs. lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Alfred Consols—Davey's 80 in.	Millions	70.2
Croft—70 in.		69.1
Delcouth—Hartlett's 60 in.		68.6
Great Wheal Bus—Harvey's 85 in.		68.5
Great Work—Leeds' 60 in.		64.5
North Roskear—Doctor's 70 in.		60.9
Roskear United—Richard's 65 in.		60.1
Ditto—St. Aubyn's, 40 in.		54.8
South Wheal Frances—Marriott's 75 in.		60.4
Stray Park—64 in.		55.9
Treloweth—60 in.		52.4
West Wheal Seton—Harvey's 85 in.		52.7
Wheal Ludcott—Willcock's 50 in.		65.9
Wheal Seton—Tilly's 70 in.		63.2

ELBE COLLIERY COMPANY.—The requisite machinery for drawing the coal will be forthwith erected. The delay which has occurred has been in consequence of its having been necessary to comply with certain Government formalities, which, although perhaps annoying to Englishmen, who are accustomed to absolute freedom in their business operations, are regarded as absolutely necessary to safety and progress in Austria.

A SALT WELL.—According to American accounts, a novel salt mine has been discovered at Wellsville, in the county of Columbia, Ohio. A well was being sunk on the Artesian principle, for extracting rock oil, when, at a depth of 488 ft., a column of gas issued from the well, and the boring-rod and some 200 ft. of piping introduced into the office were suddenly thrown out like a ramrod from a gun. The boring had reached an extensive vein of salt brine, and the gas continued to drive out with it a column of water charged with salt, and of the same diameter as the bore-hole, to the height of 150 feet. The salt brine is delivered at the rate of about 6 gallons per minute, and furnished one barrel of salt per hour.

To Directors, Solicitors, Secretaries, &c.

IMPORTANT TO ALL CONNECTED WITH PUBLIC COMPANIES.—Now ready, price 2s. 6d., A HANDY BOOK OF WHAT TO DO AND HOW TO DO IT, IN ORDER TO FORM ANY MERCANTILE, MINING, AND OTHER JOINT-STOCK COMPANIES. Designed as a PRACTICAL GUIDE for Projectors, Promoters, Directors, Shareholders, Creditors, Solicitors, Secretaries, and other officers. By THOMAS TAPPING, Esq., of the Middle Temple, Barrister-at-Law. London: Published at the Mining Journal Office, 26, Fleet-street, E.C., and to be had of all booksellers and newsmen.

LEAD ORES.				
Mines.	Tons.	Price per ton.	Purchasers.	
Carmarthen United	30	£14 3 0	Sims, Williams, & Co.	
Sold on the 15th December.				
Fromoch	126	13 9 0	Sims, Williams, & Co.	
East Darran	95	15 16 0	Newton, Keates, & Co.	
Cwm Erdd	25	16 6 6	H. Michell & Son.	
ditto	39	16 3 0	Sims, Williams, & Co.	

BLACK TIN.				
Mines.	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
Pontigny Moor	3 7 2 20	£21 7 6	£207 13	9—Calenick Co.
ditto	0 4 3 7	28 10 0	6 17 1	ditto
Sold on the 18th December.				
Gt. Wh. Vor Utd.	40 3 3 2	—	£2736 18	6—
Kitty (St. Agnes)	7 2 2 18	—	453 18	3—R. Michell & Co.
ditto	6 12 0 0	—	419 18	6—Bolton & Sons.
Wheal Union	2 4 3 15	60 10 0	135 15	5—Bisace.
ditto	0 4 2 13	62 10 0	14 14	1—ditto
Sold on the 15th December.				
Gurlyn	6 7 3 24	62 10 0	399 17	0—Mallanear.

CORNUBIA TIN MINING COMPANY.—The following is a statement of the sales of tin by this company since last reported:—

Month.	Tons.	Price per ton.	Purchasers.
August	£37 14 6	October	£149 0 9
September	51 4 0	November	121 1 4

—JOHN E. UPTON, Sec.

COPPER ORES.				
Mines.	Tons.	Price per ton.	Purchasers.	
Lot 1	100	£5 19 0	St. Helen's Co.	
2	100	5 19 0	Mona Co.	

COPPER ORES.							
Sampled November 26, and sold at Swansea December 16.							
Mines. Tons. Produce. Price.				Mines. Tons. Produce. Price.			
Knockmahon.	68	107½	£ 9 9 0	French Slag.	53	6½	£4 14 0
ditto	67	107½	9 9 0	Seville	41	10½	8 1 6
ditto	60	107½	9 8 0	ditto	5	23½	20 2 0
ditto	58	11½	9 14 0	ditto	4	14½	12 12 0
ditto	62	11½	10 0 0	Canobolas	47	14½	12 3 0
ditto	60	11½	10 5 0	New Cornwall	40	26½	23 11 0
Genoa	99	8½	7 6 6	African	25	28½	24 5 6
ditto	23	7½	6 9 6	ditto	7	24½	20 12 0
ditto	12	6½	5 1 6	British Reg.	26	36	31 16 0
ditto	5	9½	7 15 0	Connors Rd.	18	3	2 0
Berehaven	120	11	11 6	ditto	8	67½	66 12 0
Wheal Maria.	33	38	31 9 0	Gloster Slag.	4	48½	38 0 0
Ookpit	46	33½	29 18 0	West Kame.	6	48½	4 10 0
Laxey	82	6½	5 5 0	London	4	47½	41 0 0

TOTAL PRODUCE.									
Knockmahon	375	£3637	7	0	Canobolas	47	£571	1	0
Genoa	139	944	1	0	New Cornwall, S.A.	40	942	0	0
Berehaven	120	1149	0	0	African	32	751	1	6
Wheal Maria	53	1666	17	0	British Regulus	26	835	10	0
Ookpit	46	1375	8	0	Connors	26	490	12	0
Laxey	82	430	10	0	Gloster Slag	4	152	0	0
French Slag	53	249	2	0	West Kame	6	27	0	0
Seville	50	481	19	6	London	4	164	0	0
COMPANIES BY WHOM THE ORES WERE PURCHASED.									
Freeman and Co.	73	£2187	17	0					
P. Grenfell and Sons	4	164	0	0					
Sims, Williams, and Co.	160	1397	7	6					
Vivian and Sons	379	3789	7	0					
Williams, Foster, and Co.	437	5529	18	0					
Bankart and Sons	31	633	17	6					
Jennings and Co.	7	144	4	0					
Neath Copper Company	12	60	18	0					
Total		1103	£13,857	9	0				

THE ANNUAL REVIEW OF MINING.

BY J. T. WATSON, ESQ., F.G.S.

This valuable epitome of Mining Progress is in course of preparation for 1862, being the Nineteenth Year. Pursers, agents, and others concerned, are requested to forward all their information, with as little delay as possible, either to our office, or to Mr. Watson (Watson and Caell, St. Michael's-alley), that complaints may not be made of defects or omission.

* * It is earnestly requested that agents of mines will forward their reports, and correspondents their letters, as early as possible in the ensuing week, that their insertion may be secured. Christmas Day falling on Thursday will necessarily interfere with our arrangements, but we hope for the assistance of all interested to prevent, so far as possible, omissions, wherever they can be avoided.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, DECEMBER 20, 1862.

The "MINES, MINERALS, AND MINERS OF THE UNITED KINGDOM" was the subject of a highly interesting paper read before the Society of Arts, on Wednesday evening, and when we state that Mr. ROBERT HUNT, F.R.S., Keeper of Mining Records at the Royal School of Mines, was the author, it will be unnecessary to add that it was as instructive as interesting. The mineral treasures of the United Kingdom, he observes, are in every way remarkable. Whether we examine the subject historically, commercially, or from a scientific point of view, it is equally full of that real interest which ever surrounds those things which minister directly to the necessities and luxuries of human existence. For more than 2000 years we have been a mining people. The history of British mining is a remarkable exemplification of the constantly-renewing energies of man, applied without any other guiding light than that of undisciplined experience to the discovery of mineral wealth. Back in those dark days, where the guiding light of history has not penetrated—where we are aided alone by the uncertain flickerings of wild traditions—British mining has its origin. The evidences of mining by that people whom we usually distinguish as the Ancient Britons, it must be admitted, are obscure, but he maintains that there are rude works to which he could satisfactorily point as indicating the labours of our British forefathers. The Roman mines, in Cardiganshire, in Shropshire, and some other counties, show us that the followers of JULIUS CÆSAR sought with great industry to render the natural treasures of Britain available for useful ends. The inscribed pigs of lead, and ingots of copper, which have been discovered and preserved, acquaint us with this, and prove the Romans to have been not only successful miners, but skilful metallurgists. From the departure of the Romans, after their 400 years of occupation, we have no reliable evidence of the progress of British mining for upwards of five centuries. It is, however, certain that mining operations must have been prosecuted during this period, as we find the tinners of Cornwall and Devon of sufficient importance to obtain from King JOHN, in the third year of his reign, a charter granting them especial, indeed tyrannical, privileges. Presuming, it would appear, upon the patronage bestowed on them, they assumed to themselves extraordinary powers. We find a petition to Parliament, in the first year of the reign of EDWARD I., asking for protection from the incursions of the miner, stating, "The said tinners do daily dig, and claim to dig, in every species of land, as well in tilled as in other lands, and destroy houses, meadows, and woods, and divide and turn the course of water, running as well to mills as elsewhere, throughout the whole country, to the great destruction and dispersion of the said commonalty." At a later period several of our monarchs gave every encouragement to mining operations, and Queen ELIZABETH persuaded many German miners to come to this country, to whom she granted free right of search for minerals over the most important mining counties. The purpose of that Queen was to introduce a better system of exploration than that which then prevailed. From this period the progress of our mineral industries is tolerably well defined, and we may record a steady advance in the rate of production, until we find the value of our metals and minerals, exclusive of building stones and clays, to have been in 1861, 34,602,853l.

During the 2000 years that our mines have been worked the art of mining has improved; and the engineering appliances which have been brought to bear upon the ventilation and the drainage of mines are fine examples of mechanical ingenuity. The science of mining, however, can scarcely be said to have as yet an existence. In 1856 Mr. JOHN TAYLOR, who must be regarded as a good authority, stated before a Committee of the House of Commons "that there are no greater facilities for ascertaining the productive character of a mine now than formerly. The difference is simply in improved machinery. Our knowledge is not greater than that of our forefathers," and this is equally true at present. When the powers of the mind have been directed to any peculiar set of natural phenomena for a prolonged period we usually discover in hypotheses advanced, and in theories more or less supported by facts, attempts to explain the causes which have been active in producing the effects observed. There is a curious absence of this in relation to mining. Beyond some very undefined notions that fire played an important part in the formation of minerals, or that mineral veins have some analogy to the veins in the animal body, or the branches of a tree, no hypotheses have been hazarded by miners proper. A few men educated in the schools of the Continent, and two or three professors of science in this country, have, it is true, promulgated their opinions, but until WERNER published his theory they advanced but little beyond the creations of fancy. Speaking of the miner's character and temperament, Mr. HUNT describes him as superstitious. The miners may be regarded as a religious class, but theirs is the religion of the heart, not of the head. Except where they have been brought under the guidance of the Wesleyan Methodists, or of the leaders of some sect who adopts the system of appealing strongly to the passions, their religion is only a superstitious dread of something unseen—unknown. Thoughtful, we have said they are, but their thoughts flow slowly, and they have ever a tendency to dwell on the darker shades of life; while it is with extreme difficulty that they can be brought to communicate their thoughts to others. Miners are rarely frivolous, even above ground; they are especially serious below. The youngest men will express their dislike of idle conversation or of joking in the mine, while whistling is strictly forbidden. In the sports and pastimes of a mining village there is something peculiarly sober; and the celebration of the annual feast, with its attendant fair, has something of a sombre character about it in comparison with agricultural revels. A sanguine temperament may be said to distinguish a miner. He is forever hoping that stores of mineral wealth are a little in advance of his labour; therefore, although in relation to the ordinary affairs of life he is trustworthy, showing a real love for the truth, he is curiously carried away from it when describing the state of a mine, and he expresses his hopes rather than records his knowledge. The exaggerations exhibited in some reports on mines are often of an amusing character, running, indeed, into poetical rhapsodies, which lead to disappointment to those who give credence to the hyperbole indulged in.

Miners, from their very childhood, are trained to observation, yet their powers of observation are of a very limited order. Their experience is made up of a knowledge of peculiarities existing within a confined area. So long as these repeat themselves the miner's deductions are correct; but vary the phenomena ever so slightly, and he is at once at fault. This is continually occurring. Within the circle of their labours a few men will, probably, arrive at a tolerably exact knowledge of the conditions existing, and this knowledge gives them a pre-eminence amongst their fellow-miners as advisers. But remove one of these men from his own locality, he is rarely able to group the new phenomena presented to his view; he feels he is ignorant, though he is rarely so boldly honest as to proclaim it; and he commits himself to statements which are only vague guesses, happy indeed if anyone of them proves correct. The most elementary laws of science are still a book sealed to the large majority of miners, and while they are, of all men, themselves the most theoretical, they always meet any attempt to explain phenomena upon the evidences of inductive research, by pronouncing the explanation to be a "theory," which is of no value to a "practical" man. We, therefore, find that the means adopted for determining the value of a mineral district, or of a metalliferous vein, are of the most uncertain character. The task is committed to men who have only their prejudices to guide them. By prejudices we must be understood to signify crude opinions, formed from mere experience—an empirical know-

ledge of the most imperfect kind. It must be admitted that amongst the miners there is an entire absence of any method by which a knowledge may be obtained of the causes leading to the production of mineral deposits. While the speculations of those philosophers who will not endure the toil of subterranean investigations are wild, and consequently valueless. The natural consequence of this imperfect knowledge is, that all mining operations are necessarily attended with much uncertainty. From time to time a most productive mine is discovered. The Devon Great Consols, first known as Wheal Maria, has paid 826l. dividends upon every share, 12 only having been paid for shares now worth 490l. each. Upon the shares of South Caradon, near Liskeard, the trifling sum of 25s. only was ever paid; the last price of those shares was 390l.; and 391l. profit has been paid on every share. There are other examples of great success in mining. Such results as these are laid hold of by designing men, and used to bait the hooks by which those who are in a hurry to be rich are to be caught. There is, however, a more satisfactory chapter than this in the history of British mining; and after the experience of considerably more than 20 years, with constant attention to the subject, Mr. HUNT feels assured that mining, commenced with proper judgment, legitimately carried onward, guided by the advice of experienced miners, and directed by honest intentions, is as satisfactory a speculation as any in which a capitalist can engage. In evidence of this, it is pleasing to adduce an instance of the result of undeviating honesty and ordinary caution. Upwards of 50 mining adventures were entered on; these represented a net capital of about 500,000l.; the mines were worked, exhausted, and abandoned. During the period between their commencement and termination these mines made a profit of upwards of 800,000l. Thus we learn that, notwithstanding the uncertainty which attends all mineral explorations in the present state of our knowledge, adventurers may, by availing themselves of the assistance of men whose judgment has been formed by a careful study of any selected locality, and whose opinions are not biased by improper influences, not merely escape loss, but actually realise a fair profit, if their speculations are sufficiently extensive. By this is intended the advice of an old and successful miner—Never to put all your capital into one mine, but to extend it over many mines.

In discussing the very natural question whether there are any methods by which may be determined, before commencing operations and expending capital, whether there are metalliferous minerals in the vein it is proposed to explore? Mr. HUNT briefly explains the various hypotheses of AGRICOLA, LECHEMANN, FOURNET, BURAT, and others, and mentions the names of many more who have written upon the subject. After disposing of a few igneous and aqueous philosophers, Mr. HUNT informs us that LEITCHHART puts forward some vague ideas on electrical action. This writer's subterranean geometry is good, but his physics are sadly at fault. BERQUEL records some exceedingly curious experiments, showing that electric currents will produce many of the phenomena observed in mineral deposits. ROBERT WERE FOX has produced miniature veins in clay by the long-continued action of weak voltaic currents. These experiments have been repeated by himself upon a larger scale than those originally made by Mr. R. W. FOX, and the results have been in remarkable confirmation of that gentleman's views. All the more important writers who have dealt with this subject have now been named. Sir HENRY DE LA BECHE, whose Geological Survey of the Kingdom, established the Museum of Practical Geology, showed much interest in the subject, but he can scarcely be regarded as an original investigator in this branch of the science. Mr. W. JORY HENWOOD has given us a valuable record of facts connected with the mines of Cornwall, and Mr. W. WASHINGTON SMYTH has admirably described the mineral deposits of Wicklow and Cardiganshire, but they are silent on the agencies to which they would refer the appearances which they have noticed; but, upon the whole, Mr. HUNT concludes that during a long period of time no advance has been made in our knowledge of the phenomena of mineral deposits. He shows how purely speculative have been nearly all the explanations which have been published, and insists upon the position that empirical knowledge only has been brought to bear on a subject which materially connects itself with the prosperity of the land. He declares that he has approached the subject in the most entire independence, that he is unbiased by any interest, and his desire is purely and simply to aid in the introduction of some system which shall remove mining from that realm of speculation in which it has been suffered to remain.

After an elaborate series of tables, showing side by side the metalliferous wealth of the several parts of the United Kingdom during the three years ending 1861, Mr. HUNT remarks that this enormous amount of wealth is annually produced from our rocks by the means of avoiding the danger into which he has impetuously rushed. Mr. HUNT estimates that there are no less than 336,000 persons actually engaged in mining operations; this is exclusive of quarries of all kinds. He calculates that our 3000 coal mines employ 250,000 persons; our iron mines, the number of which is uncertain, 27,000; our 167 copper mines, 22,600; our 148 tin mines, 14,500; and our 290 lead mines, 21,500, the remaining 1000 being engaged in zinc and other mines, not wrought especially for either of the above minerals. Mr. HUNT considers that out of this (say) 300,000 there certainly are not more than 300 under any such course of instruction as is necessary to fit them properly for the labours to which they are destined. We boast of our educational progress. We teach our children in every, the remotest, corner of the land, and there we stop. We instruct our children in the signs by which ideas are expressed, but we leave them to gather ideas by any accidental means which may present themselves. We put tools into the hands, but we trust to chance for a knowledge of the way to use them.

It is unnecessary to discuss the question of the worth of knowledge to the working man; the unfortunate evidence which is constantly recurring of the loss of life in our collieries and mines convicts us all, as a people, of great carelessness. Some of our great engineering works have been executed under the guidance of some master mind, but we have gone on trying the experiment in our mining operations, and every accident which claims that the system does not answer. If we would save life we must educate the living in the causes of danger, and teach them the means by which they may be guarded against. The ventilation of a colliery may be the best possible, the truest science may have been brought to bear on the problem, and in obedience to exact laws everything may have been arranged. Then, having taken all this care, having expended all this thought, time, and money, we leave it to the mercy of any individual man, out of many hundreds of ignorant men, who, through their very ignorance, are thoughtless—reckless. Hundreds of thousands of pounds are expended annually in the exploration of our mineral districts. There is a rare, a tempting, supply of minerals in these islands. We have gold and silver, copper, lead, tin, zinc, antimony, nickel, cobalt, bismuth, uranium, chromium, and other of the rare metallic minerals, not to mention our vast stores of iron; coal beds, which are enormous, but which we are wilfully wasting, and earthy minerals of great value. The hoarded treasures are mined for by men who burrow, as does the mole, without any guiding light. The result is that mining for metallic minerals is not, on the whole, remunerative, whereas it is the expressed opinion of men whose experience entitles them to attention, and whose utterances are the result of careful thought, that no industry should yield so fair a profit if prosecuted with judgment, and carried forward with the necessary care and consequent economy. It may be asked what can be done to remedy the evils described? The one only remedy is a correct—a fitting education. By this is meant instruction in such truths as will serve as guiding and as warning lights. He does not dream of making miners men of science, and would avoid that superfluous knowledge which does tend, in poor, fallible, human nature, to generate conceit. He would not attempt to teach mining in a school. The only school in which mining can be taught is in the mine itself; but he would bring 'n aid of that practical teaching on which he must insist, those aids which have been afforded by the investigations of true science. At a small cost, in each mining district, schools might be cheaply established, and the means afforded for the acquisition of that modicum of knowledge which is really required. If desired, in well-selected centres, a yet higher class of instruction might be given to those who had shown they had the industry and ability to deserve those larger advantages. From these, again, might be gleaned the more remarkable young men, and to them might be offered the full scientific education which is afforded by such an establishment as the Royal School of Mines. Mr. HUNT feels assured that in Nature there is no uncertainty; that the mineral veins, with all their apparent irregularity, are as dependent on some fixed law as is the motion of our satellite, and the recurrence of the tides on our shores. The earth was given to man that he might subdue it, and brute matter with the physical forces in connection with it, can only be brought under subjection by the influence of mind. No discovery was ever made without great labour. To work and wait is man's destiny, and unless he will bring his industry to bear on any subject, and train himself to patience, the truth will not be disclosed.

In conclusion, Mr. HUNT observes that a Commission has been, during the year, most industriously at work, enquiring into the conditions of our metalliferous mines, and the health of our miners. We must wait for their report, which, appear when it may, will be a most important record of facts. Whatever may be the advice of the Commission to the Government, of this he is assured:—That money will continue to be squandered in lavish expenditure on mines that are unworthy of trial; that wealth will be wasted through the errors of ignorance; that dreadful casualties will continue to be suffered; and that the miner will perish ere yet he has reached the number of his days, until we have crushed out that dark ignorance which spreads over all like a fungus, and have planted in its place some of the seeds from the tree of knowledge.

In an interesting discussion which followed the reading of the paper, Sir THOMAS PHILLIPS (the Chairman) observed that Mr. Hunt had adverted to the uncertainty attending mining operations, and he thought Mr. Hunt was too sanguine in his anticipations as to the power that might at some future time be acquired of ascertaining beforehand the nature and extent of the mineral deposits in a particular locality, and that there always must be a great amount of uncertainty.

Prof. TENNANT seemed fully to recognise the barbarous ignorance both of Cornishmen and miners generally, his chief grounds for the assertion being that in our colonies and elsewhere stones had been passed over which had been submitted to him he might have shown to be diamonds; and that Cornishmen were too ignorant to distinguish iron pyrites from copper pyrites, because, as he contends, they call both mundie.

Mr. R. RAWLINSON was sorry to say that Mr. Hunt's remarks as to the ignorance of the miners applied to every district he had visited. With regard to the peculiar loss in mining, he would state that some years ago, whilst holding an official enquiry in Cornwall, he was brought into connection with several of the large mining adventurers of that district, and they stated it as their opinion that if the value of all the ore mines in Cornwall, and the cost of working them were compared, the statement would stand as something like 25s. paid for every pound's worth of ore obtained.

Mr. JAMES HOLLOW generally concurred with Mr. Hunt, but did not consider the miners were altogether the ignorant and gloomy class which Mr. Hunt had described them.

Mr. HUNT, in reply to Sir Thomas Phillips's remark that there would always be uncertainty, said that there were certain laws in obedience to which the minerals were deposited. What he hoped to see was a careful record of the varying condi-

tions met with, which would lead to knowledge. He must stand up in defence of the miner against Mr. Tennant, since the ordinary minerals—the varieties of tin and copper ores, and of lead and zinc—miners had gained by experience a very perfect and strictly discriminating knowledge, but he believed that by increased chemical knowledge they would be able to turn to account the rarer minerals, such as the silver in gossans.

Mr. W. HAWES was rather disposed to praise the workmen for what he did know than to find fault with him for what he did not know. With their present knowledge he thought it would be difficult for them to ascertain the fixed laws of Nature in the deposition of mineral veins, but they must endeavour to guess, upon the best information they could obtain.

The usual vote of thanks closed the proceedings.

THE MINES, MINERALS, AND MINERS OF THE UNITED KINGDOM.

CRITIQUE ON PROFESSOR HUNT'S LECTURE AT THE SOCIETY OF ARTS, ON WEDNESDAY, BY A WORKING MINER.

Everyone who has had the pleasure of hearing Mr. Hunt must bear witness to his ability as a lecturer: to lucidity of statement he adds the grace of that clearness of voice and earnestness of manner that cannot fail to rivet the attention of his audience. On the present occasion he dwelt with great eloquence and felicity of expression upon the subject at issue, and laboured to prove not only that mining was a thing not understood, but that the inhabitants of Cornwall engaged in that pursuit were a race to a degree ignorant and benighted. Had Mr. Hunt been lecturing on the aborigines of Australia or Patagonia, he could hardly have dwelt with greater force upon their lack of intelligence, than he did upon the Celtic race of the western promontory of our island; and I am sure our Cornish friends will owe him a debt of gratitude for thus depicting their mental obscurity; as, when people know the depth of their darkness, they are the more likely to cry out for light. It must, however, be acknowledged that, with singular inconsistency, Mr. Hunt describes the mental powers of the Cornish miners as of the highest order, and their aptitude to receive instruction and to digest their mental pabulum, the quickest and most excellent in its degree. Mr. Hunt went on to show the absurdity of their ignorance, by declaring how little they knew of the elements of nature, as far as the newer metals were concerned; and declared that, as a body, they were innocent of the character of cadmium, tellurium, iridium, molybdenum, and such like discoveries in the metallic kingdom; or, if they knew anything at all about them, it was but a modicum of what they ought to know.

Prof. Tennant, at the end of the lecture, bore strong evidence to the obtuseness of the Cornish mind, and said they did not in that barbarous district know the difference between copper pyrites and iron pyrites; and as to diamonds, he had put some of these precious articles before them in their rough state, worth 50l. per ounce, and he declared these Cornish muffs knew nothing whatever about them. We cannot but mourn the lamentable ignorance of our western countrymen, but if my memory serves me well, in some of the pitches in the back of adits in the Cornish mines, where the sulphurets of the metals join the oxides, I believe I have seen the Cornish miner performing that test that Prof. Busen has performed with so much renown in analysing the rays of the solar spectrum. I have seen him burning the metal in his candle, and deciding by the colour of the flame whether the sulphuret were of copper or of iron; but as this was more than thirty years ago, probably the natives have receded toward savagism during that time, while Prof. Hunt has improved the germs of knowledge he picked up in that county until they have bloomed into their present effulgence, the brilliancy of their effervescence throwing all other things into the shade, although there may be more things in heaven and earth than even Mr. Hunt's philosophy dreams of even now. Once, indeed, Mr. Hunt in dilating on the perfect chaos that mining science was in, entered upon the verge of letting in some light upon it, by observing that, following out the experiments of Mr. Robert Were Fox, he had succeeded in creating metallic veins by means of slow voltaic currents. Now, I thought that most people still judged that these were the causes of the crystallisation of the metal in the lodes; and I know of places where, following the line of the magnetic needle and opening on the gossans of the lodes, twenty good mines following had been found, without one intermitting error.

I have known one mine agent open as many as sixteen mines, all of which have proved profitable; and, I believe, supply many of our agents with the capital and they would go and do likewise. The truth is, these poor Professors when they go underground, shivering with fear, with their clothes wet, their fingers dirty, their shoes under water, and their feet damp, with the nasty greasy candle to carry, have very little time or opportunity to examine the lodes, and they are glad to get to grass again as soon as possible. Poor gentlemen! I have seen them often underground in a dreadful state; it has made my heart sore to see them, and I am not at all surprised that they should think it impossible for anybody to find a good mine by any such symptoms as they were enabled to discover. With the miner, in his underground clothes, in his normal state, it is quite another thing, and he is enabled to examine everything underground with as much comfort as the Professor is enabled to examine a piece of polybasite in his museum or study. The Professor alleges that the whole of the metallic mines in England pay about a sovereign for every 25s. invested in them, he must know that, at any rate, a number of them pay a high percentage upon the money embarked in them, and that with regard to the rest, they are progressing towards a state of completion.

Is not this the case with everything else? Suppose that a person wishes to invest money in building houses; it is only those that are complete that pay him a rent; and, if we take it for granted that it will take five times the year's rent of one house to build another, it follows that if he have only one in the course of building, and four completed, although he will be receiving no rents, dividends, or interest for his capital, he will yet be fairly increasing his property. The inference is obvious. If we have a number of mines brought to that state that they pay better profits than any other investments, and a number of others approaching that state, although, upon the whole, we are receiving no money while this state of things is in progress, we can yet see our way to a legitimate issue; furthermore, we can see that we are engaged in a healthy business. Although we cannot look into the recesses of Prof. Hunt's mind to discover the reason for rendering a matter that is in itself clear obscure, and, as far as may be, unintelligible, but must remain in his own breast until he thinks proper to divulge it; but possibly it may be out of deference to the man that has the 50 mines, to which he occasionally alluded as a safe example to follow; but where is the money to come from? It is a great thing for the nation that we have these Government-paid professors to instruct us.

REPORT FROM NORTHUMBERLAND AND DURHAM.

DEC. 18.—The general position of the Coal Trade here certainly does not improve as the year advances, and the prospect for the ensuing spring does not appear very bright at present; on the whole, indeed, it appears to be the reverse, and gloomy enough. The long-continued depression felt at the large steam coal collieries in Northumberland has led to the men engaged receiving a month's notice for the termination of their present agreement. This has been done at several of those large works, including Bedale, Steeburn, Seaton Delaval, &c.; it being understood that the intention of the owners is to make a reduction in the present prices paid at the termination of that period. This, however, it is to be regretted, can hardly excite surprise, when the long-continued depression experienced is taken into consideration. The Walker explosion has given a little impetus to the "Miners' Permanent Relief Fund." In this district already the local society numbers upwards of 8000 members—a nucleus from which there is little doubt it will ultimately assume proportions commensurate with the merits of such a fund. When a sufficient number of members shall have been secured the adhesion of the coalowners to the scheme will, no doubt, be secured, and also the support of the general public. A visit has been paid to the district lately by the promoters of a general fund, but their reception has been, as might be expected, very cold. It is much to be regretted that their visit should have been paid at all, as it only tends to create dissension in the ranks of the miners, where all should be unanimous. The National scheme never did receive much support here, still its advocacy has retarded the progress of the local scheme considerably; but as the latter is in actual working order, with a considerable number of members, and in good hands, it is to be hoped that the miners will come in and join in thousands, as its importance cannot be overrated.

The exports of coal from the north-eastern ports, as shown by the monthly list for November, have considerably fallen off when compared with the exports in last November, the total exports of coal having been 210,624 tons, against 226,507 tons of coal, and 18,141 tons against 18,829 tons of coke. This certainly appears to be a very unsatisfactory state of things, so far as the coal trade is concerned. There can be no doubt that a considerable amount of trade has been lost to the district owing to the unfavourable state of the Tyne for the loading of large ships; but this is rapidly changing. The Wear has fully sustained her part, but cannot supply the place of the Tyne, which is a much larger river, and a greater depth of water was all that was required to attract large vessels to it. This is now supplied to a great extent, and no doubt the vessels will follow when they can be supplied with coal of the best quality of every description.

The Iron Trade is, on the whole, in a much better position than the coal trade, the stocks of pig-iron, and also manufactured iron, not being large, with a tolerable demand for all kinds. At many of the manufactories on the Tyne business is very dull, many hands being only employed partially, and numbers have also been discharged; but it is expected that there will be an improvement in this respect early in the ensuing year, as many have orders on hand to commence with on Jan. 1.

A case of considerable local interest was heard before the Master of the Rolls on

Dec. 10, the plaintiffs being the Northumberland and Durham District Banking Company, and the defendant Mr. Ralph Walters. The defendant agreed to purchase the Spital Tongues Colliery from the plaintiffs, paying a deposit of £2000, but a dispute having arisen as to a certain plot of ground, the defendant refused to pay the balance, £9000, and has since worked the colliery and received the rents of the property on the estate. The plaintiffs, therefore, filed a Bill in Chancery, and the case was heard on Dec. 10. The Master of the Rolls at once stated his intention to make a decree for the specific performance of the contract, with a reference to Chambers to ascertain whether the defendant should be made from the total of the purchase money, by reason of the defendant not being able to convey, to put him in possession of the whole of the colliery, as it existed on the 19th day of March, 1860, the day of the contract, and also a deduction of 1000, in respect of the two plots of land under the contract of 1841, with such interest as the defendants ought to pay. The Master of the Rolls announced at considerable length on the conduct of the defendant in carrying on the works for a year after he knew the state of the case.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Dec. 18.—All accounts concur in supporting the reports previously made as to the Iron Trade. There is a fair supply of orders in all branches, except, perhaps, for common bars; and considering the season of the year, and the absence of stocks of manufactured iron, the trade may be regarded as in a healthy state, and in a position in which any decided addition to the demand would soon lead to an advance in prices. How long it will be before this result shall be obtained it is vain to surmise. Until it is experienced, manufacturers must be content with small profits, and the men with low wages, and find consolation in the fact that the works at the present low rates can, in spite of untoward influences, be kept in a fair degree of operation. There are reasons for anticipating that the trade will be considerably better in 1863 than during the year now so near its close. The dispute as to wages having been adjusted, there is a good demand for coals at most of the collieries of the districts of North and South Staffordshire.

In a recent letter it was noticed, as a matter of congratulation, that proprietors of collieries had taken the initiative in instituting proceedings against those in their employ for breaches of the regulations imposed under the Miners' Inspection Act. On Monday last a number of chartermasters in the employ of the respected firm of Messrs. John Bagnall and Sons were summoned before the Willenhall magistrates, at the instance of their employers, for paying the men at their houses, instead of at the colliery, as required by the special colliery rules. The object of the rule is to prevent any inducement being held out by the chartermasters to the men to spend part of their wages in drink, and it is satisfactory that the Messrs. Bagnall insist on those in their employ complying with it. Without a disposition on the part of the owners to enforce the provisions of the Act, they will too often prove only a dead letter, or merely a handle by means of which common informers may extort money.

Abraham Roper, a man who pursues the profession previously noticed, has lately been looking up cases in which persons are raised or lowered in vertical shafts by girls, women, or boys, under 18 years of age, the prohibition of which is a very salutary provision, the very necessity of which tends to show the want of a proper regard for safety. In a case heard yesterday before Mr. Partridge, stipendiary magistrate, at Wolverhampton, Mr. B. Whitehouse, sen., owner of the New Cross Colliery, near Wednesfield, was charged with allowing a boy under 18 years of age to have charge of an engine used to draw persons up the vertical shaft of a pit. On the 20th ult. Roper went to the colliery about half-past five o'clock in the evening, where he concealed himself in the ash-hole near the engine-house, and saw a boy, apparently about 15 years of age, set the engine in motion and let down three men in the pit, in a tackle skip. At that time no one except the boy was in the engine-house. Witnesses were called to prove that the offence was committed entirely without the knowledge and consent of the defendant. One of these witnesses was the ground bailiff, but he admitted that he had himself, on one occasion, been let down by the boy. The magistrates thought the charge had been sustained, and inflicted upon defendant the minimum penalty of 30s.

On the morning of Friday last three boys and a man were killed by a fall of coal at a colliery at Dornington Wood, Shropshire; and a fourth boy was much injured as to leave no hope of his recovery. The result of the enquiry before the coroner was a verdict of "Accidental Death." With reference to the action, referred to last week, in which the railway company was plaintiff in the Court of Chancery, and Messrs. Haines defendants, Mr. Job Haines, one of the latter, and a magistrate of the county, in a letter recently published, asserts that not only does the memorandum drawn up by Mr. Yardley not contain any reference to the rights of the lessor, but he says—"I distinctly assert, as sworn to in the proceedings of this cause, that I never negotiated for, or assented to sell, the land-lord's interest, and that the agreement by which the land-lord was bound was correctly prepared. I had no power to deal for the land-lord's interest, as Mr. Yardley well knew, not only from his being the land-lord's mineral agent for the property in question, but also from distinct information conveyed to him previously by the land-lord's principal estate agent, that I was only to treat for my own interest, and leave the principal's agent to deal for the land-lord separately."

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

Dec. 18.—The near approach of the festive season of Christmas is a period generally dull in commercial matters, as merchants are engaged in stock-taking. The present season, however, as far as it has gone, has proved more satisfactory than at this period last year. There is a good demand for rails and railway springs, and in the present week we have had a large order in the market for a continental line. There is also a great demand for armour-plates; and it is stated, on undeniable authority, that at the present rate of production it will take nearly two years to complete the orders which the Admiralty have ready for plates required for the different vessels which the Government have determined to coat with iron. Another feature of great interest is the large increase which is taking place in the demand for all kinds of machinery and for tools. Russia is buying largely in steam-engines, but more especially in all descriptions of agricultural implements. Agents of Russia have recently visited our agricultural exhibitions, and have purchased from the manufacturers of approved agricultural implements to a very large amount. The demand for bars and other descriptions of iron, though not active, is gradually improving. The make of Derbyshire pig-iron is increasing. The Clay Cross Company have put in another blast, which has been out for many months. The Steel Trade is improving, but there is not so much activity in the general Cutlery Trade.

The President's message has put at rest and aside the expectations of those who anticipated the success of any mediation by foreign powers being at present accepted by the Federal Government, and those who speculated largely on the hopes of peace have, unfortunately, been doomed to disappointment, and are now parting freely with their iron, if not at a loss, at least with a small profit. The quantity of iron in circulation is nearly 2500,000 tons, notwithstanding the activity in the furnace district the exports continue small, and in Liverpool it is generally believed that prices must recede. It is well known that bankers at present refuse advances to holders, in the expectation of money getting dearer, and speculators who have obtained an advance on a small margin have been obliged to pay increased sums, in order that the margin may be extended. In the United States the local manufacturers have received a great impetus in consequence of the extensive demand by Government for iron-plated vessels. The iron produced in the Northern States during the past ten months has exceeded that of the previous two years, and, of course, there is no doubt that, with an increased consumption, the elements of production will be simultaneously enlarged. In England the local consumption can hardly be greater for some time than it is at present, though now it is extensive when compared with the general dulness.

The Coal Trade of these counties has improved very materially during the present month. The demand for the London market has been much better, and the hard coal being now used almost exclusively on the Midland Railway in lieu of coke, a greater demand has sprung up. It has also been found that the coalmasters of Derbyshire and the Erewash Valley can compete successfully with the coal of South Wales, and, therefore, the apprehended competition has not been as was anticipated, the effect of inundating Derbyshire and South Yorkshire with Welsh coal.

A very influential meeting of merchants, coalmasters, and manufacturers was held at Sheffield, on Friday, to promote the making of the direct railway from Sheffield to Chesterfield. We have before explained that this line is especially intended to afford a railway transit for a large bed of minerals along the Dronfield Valley, as well as to place Sheffield on the main line of the Midland. It is calculated that if the present annual quantity of minerals now conveyed in carts were carried by rail, there would be a saving in the cost of carriage of £90,000. Mr. Smith, a director of the Midland, attended, and a letter was read from the Chairman of the line, Mr. Samuel Beale, stating that if the board could be assured of the support and influence of the people of Sheffield, the directors would recommend the working of the line to the shareholders. It may, therefore, be taken for granted that the line will be made, as it seldom happens that a body of shareholders refuse to carry out the recommendations of their directors.

The judicial enquiry of the coroner in respect of the cause of death of the eleven persons by the recent boiler explosion at Masborough has terminated in a verdict of "Manslaughter" against George Radford, the engine-tender, who had neglected to provide a water-gauge, the absence of which the jury thought had led to the explosion. The coroner thought it was not a case for a criminal charge against George Radford, as there was a divided responsibility between several parties; but on Wednesday the grand jury at the York winter goal delivery found a true bill against the man, and it is expected that he will be tried this week. About 6000, has been raised in aid of the families of the deceased men.—The inquest on the bodies of the unfortunate men whose lives were sacrificed at Edmund's Main Colliery, near Barnsley, has been opened, and three witnesses examined at great length. The opinion prevails that if proper warning had been given after the first explosion all lives might have been saved. Mr. Morton, the Government Inspector, is pursuing a rigid enquiry into this melancholy affair, and great confidence is felt that he will not allow anyone to escape, if it should be proved that neglect of any kind led to the accident.—The local stock and share markets for the week have been dull, and only a nominal business transacted.

A contract for the supply of a portion of the armour-plates for the iron frigate *Achilles*, 50, 1250-horse power, building at Chatham Dockyard, has been taken by Messrs. Brown and Co., of the Atlas Works, Sheffield. They have engaged to supply the plates at the rate of 45s. 10s. per ton. The principal portion of these armour-plates will be manufactured at the Parkgate Iron-Works, Yorkshire, which firm has already supplied a large number used at Chatham. In the manufacture of the armour-plates for the *Achilles* some improvements will be introduced, in order to give greater strength and hardness to the iron. In the preparation of the plates hitherto supplied for our iron and iron-cased vessels a certain number have been manufactured either from rolled or hammered iron—that is, the "bloom" of iron when taken from the furnace is either rolled into the required slab under heavy rollers, or else beaten into shape under the steam-hammer. It is intended, however, to employ both these processes in preparing the armour-plates for the *Achilles*, the "bloom" being first rolled into the shape of the plate, which will then be completed under the operations of the hammer, experience having shown that the plates manufactured by hammering are considerably tougher, and have a much closer grain than those which have been rolled only.

Mr. H. Sanderson, of the firm of Wm. Sanderson and Sons, Sheffield, has patented some improvements in the manufacture of table and other knives and forks; Mr. S. Fox, Stockbridge Works, Despar, some improvements in retorts and apparatus employed for the manufacture of gas, and also in purifying gas; and Mr. John Brown, of the firm of John Brown and Co., of the Atlas Steel Spring and Iron Works, some improvements in the manufacture of armour-plates. And Mr. Charles Henry Flevins, of Dunstan Hall, in the county of Derby, colliery owner, and Henry Rider, of Rotherham, in the county

of York, colliery engineer, have given notice of their intention to proceed with their improvements in the construction of colliery wagons, tubs, or corves, and in apparatus for tipping or discharging the same.

REPORT FROM MONMOUTH AND SOUTH WALES.

Dec. 18.—The confidence of the ironmasters in the future of the Iron Trade is clearly evinced by the extension of the means of supply which has taken place within the last few months, and by the preparations that are going on for a still further increase in that respect. There are a number of furnaces yet out of blast, it is true, but since Midsummer the unemployed furnaces have been gradually diminishing, and there is every reason to hope that four or five more will be put in blast about the commencement of the year. This clearly proves that the ironmasters look forward to better times, and it is pretty evident that they are not mistaken in their views. At present the works generally are fairly employed, with perhaps one or two exceptions, where but few orders are in hand. During the month of December, being the last month of the quarter, the trade is, even in the best of times, slightly depressed, as buyers, rather than speculate, prefer waiting until the coming quarter. The quotations for iron continue about the same. Rails are not much enquired for, and merchant bars are only in ordinary request. The collieries are kept going pretty regularly, and the men are well employed. A large quantity of coal and coke is now being taken from the Monmouthshire district to the Midland counties, in order to be used in the manufacture of iron. The Tillery and other veins of coal are especially well adapted for this purpose, and a large trade is already being carried on with Staffordshire and other midland counties. The demand for steam coal is not brisk, but there is a fair trade doing. There is no change to report in prices.

The Pontnewydd Tinworks were offered for sale by Messrs C. Evans and Son, at the Westgate Hotel, Newport, on Thursday last. The highest bidding only reached 7000l., and the property was bought in. The reserve price was 10,000l.

The Risca Coal and Iron Company's property was offered for sale, without reserve, by Messrs. Fuller and Horsey, at the Mart, on Tuesday last. The property consists of the Black Vein, Rock Vein, and Sun Vein Collieries, together with a large surface estate, part of which being freehold. Since the disastrous explosion which took place at the Black Vein Colliery in Dec. 1860, the affairs of the company have been managed by the Court of Chancery, and the present sale took place by order of the Court. The property was offered for public competition on a previous occasion, the reserve price being fixed at 69,000l., but there was no bidding, and hence the sale fell to the ground. On Tuesday there was no reserve price, and the first bidding was 25,000l., which gradually increased to 38,000l., and the auctioneer declared Mr. Rhodes, one of the directors of the old company, the purchaser at that amount.

The adjourned inquest touching the death of David Daniel was held at the Pemberton Arms, near Llanelly, on Saturday last. On Nov. 15, an explosion took place at the Genwin Colliery, and the deceased and several other persons were severely burnt. The enquiry had been adjourned until Saturday, in order that Mr. Thomas Evans, the Government Inspector, might be present. Several witnesses were examined, and they all declared that they used locked safety-lamps, and they considered that every precaution had been taken as regards the ventilation of the colliery. The jury returned a verdict that "The deceased died from the effects of an explosion of fire-damp at the Genwin Colliery, cause unknown."—On Monday, a lad named Sullivan met with his death at the Pentrebach Works. By some means he got entangled in the machinery, and his body was mangled to pieces. It appears that the deceased had no business in that part of the work where he met with the accident.

The Llanharri Hematite Iron Ore Mines, respecting which so much litigation has taken place, are now the property of Mr. John Bethell, brother to Lord Chancellor Westbury. It will be remembered that after a considerable outlay of capital the mines were abandoned by the old company, although it was quite evident that bad management was the sole cause of the failure. After several unsuccessful attempts to dispose of the property it was at last bought by Mr. Bethell for a very low figure. Since the works came into the hands of the latter gentleman energetic efforts have been made to properly develop the mines, and under the able management of Mr. Brain, assisted by Mr. E. H. Blake, of London, there is every prospect that Mr. Bethell will receive ample returns for the capital laid out. A considerable quantity of ore has already been brought to the surface, and it is expected that the mines will be in full work before long. A more detailed report will appear in a future Journal.

Another batch of workmen are about leaving this district for Russia, where some extensive collieries are about to be opened. It is only a short time since that a considerable number of men employed at the Dowdalls and Rhymney Ironworks left for Russia, in order to teach the Muscovites how to make iron. This proves that the Russians are alive to the importance of commercial enterprise.

The arrivals at Swansea include—the Sirene from St. Malo, with 102 tons zinc ore for Dillwyn and Co.; Countess of Bective from Cuba, with 521 tons copper ore for the Cobbe Mining Company; Mangosteen from Santiago di Cuba, with 560 tons copper ore for Richardson and Co.; Farmer's Lass from Gaudiana and Gibraltar, with 210 tons manganese ore; Elenne Maria from Lisbon, with 110 tons copper ore for order.

THE SCOTCH IRON TRADE.

The annual circulars which the iron merchants and metal brokers are kind enough to scatter broadcast about the New Year for our instruction, will inform us that, whilst the production of pig-iron in Scotland amounted, in 1862, to the enormous quantity of about 1,080,000 tons, the total deliveries reached only 980,000 tons, and will show the stock in makers' and warehouse keepers' stores about 750,000 tons, including the Carron. The increase in the stock this year will, therefore, be put down at 90,000 tons to 110,000 tons. They will exhibit the cause of the late artificial rise to 57s. 6d., and the legitimate grounds for the recent gradual fall to 53s. 6d. The average price will be about 52s. 9d. per ton, against 49s. 3d. for last year, when the shipments were larger, and the stocks 100,000 tons less. Considering the increasing depression in the manufacturing districts, the malleable works, foundries, and shipbuilding yards on the Clyde are all well employed. But so long as the production continues so greatly in excess of the legitimate demand, a considerable decline in the price is to be apprehended. It is now felt that low prices alone will bring the iron trade to its proper equilibrium, and put it on a sound basis, in obedience to the laws of supply and demand.

TENDERS FOR BRITISH IRON FOR GOVERNMENT.—The tenders for the supply of British iron to Her Majesty's dockyards were opened on Tuesday, in the presence of the Lords of the Admiralty. There was considerable competition in the iron trade for this extensive contract, judging from the large attendance of representatives of the leading firms and manufacturers of Staffordshire and London. The successful competitors were the old established firms of Moser and Sons, of Southwark and Upper Thames-street, who have held the contract for six years.

MANUFACTURE OF IRON AND STEEL.—An improved apparatus for manufacturing malleable iron and steel has been patented by Mr. E. E. Wilson, of Parliament-street. The apparatus is known as the "Wilson Patent," and it consists of a cylinder in which is conveyed through a throat from the bottom instead of through tuyers in the usual manner. The throat is turned up so as to form an inverted syphon, and when the iron is sufficient heated, the vessel may be turned on the turnings upon which it is hung, and the refined iron or steel poured into the ingot moulds, or otherwise.

STEEL.—Mr. Anderson, the assistant-superintendent of Woolwich Arsenal, has recently re-discovered a simple process by which the steel is rendered as tough as wrought-iron without losing its hardness. This change is effected in a few minutes by heating the metal and plunging it in oil, after which the steel can be bent, but scarcely broken.

EFFECT OF GALVANIC ACTION ON IRON SHIPS.—It appears that it has now been proved beyond question that the coating of iron ships with preparations of copper results in a galvanic action which entirely destroys the iron plates, by converting them into a substance much resembling plumbago. The effect of this action has become very manifest in the case of *La Gloire*, the whole of the plates of which will have to be removed below the water line, and in some of our own ships the action has been no less remarkable. Fortunately, however, the Admiralty have now adopted a substitute, which entirely obviates the difficulty. The *Frigate* has just been repaired at Devonport Dockyard, and is now coated with Messrs. Peacock and Buchanan's preparation. It will be recollected that some years since Capt. Peacock issued a pamphlet on the subject, and we understand that more than two years have elapsed since he pointed out to the Ministers of the Marine in Paris and Madrid the danger of using copper. It is gratifying to find that the English Admiralty has been the first to adopt an improvement.

PURIFICATION OF AIR AND WATER.—Mr. H. B. Condy, of Battersea, has recently issued a pamphlet entitled "Air and Water: their Impurities and Purification," which is intended to explain two of the applications of "Condy's Patent Disinfecting Fluid," which has already acquired a high reputation as a sanitary preparation. Mr. Condy complains that, owing to the very limited and inadequate space allotted to him at the International Exhibition, his products have been almost entirely passed over by the reporters and critics of the periodical press, in their notices of the several classes of industry represented at South Kensington; and he, therefore, has printed a brief explanatory pamphlet to compensate for this disadvantage, and afford the means of forming a juster estimate of the importance, in a sanitary point of view, of preparations which, in the award of the Prize Medal received, were designated by their scientific and not very attractive names of "Manganates and Permanganates," instead of by those of "Condy's Patent Disinfecting Fluid," "Ozonized Water," &c., which are now familiar to the public as important hygienic agents. A number of very flattering testimonials are appended to the pamphlet, in proof of the value of the alkaline permanganates (Condy's fluid) for the purification of water and air, and the general requirements of naval, military, and hospital hygiene.

METALLIC SAFETY-FUSE.—The improved metallic safety-fuse invented by Messrs. Victor and Polignac has been frequently referred to in the *Mining Journal*, but from the difficulty and expense, it is presumed, of the manufacture, and from certain minor defects, the new fuse has not been extensively introduced. Messrs. Victor, Polignac, and Rousneville now propose to cover the lead or other soft metal tube with a hard metal spiral, or with a thin coat of copper to be deposited by electricity. According to another modification of the invention they propose to use a slip of hard metal, wider than the circumference of the intended tube; the charge is placed along the strip of metal,

which is then closed and fastened by passing through rollers. The charged tube is then coated by electricity in the usual manner.

MINERS' SAFETY-CAGE.—An improved safety-cage for miners has been proposed by Mr. G. B. Goodman, of Baker-street, Portman-square. Four guide-ropes are used, each of which is provided with a rack. Bolts are provided on the cage, which in case of the breakage of the rope are thrown forward into the rack, and support the cage. The chief feature in Mr. Goodman's invention appears to be that immediately the bolts are thrown forward a wedge falls, and keeps them in their place, so that the further descent of the cage is rendered impossible.

MINERS' SAFETY-LAMPS.—Mr. James Maiden, Waterloo, Ashton-under-Lyne, proposes an improved self-locking and self-extinguishing miners' safety-lamp. The invention is applicable to the ordinary Davy lamp, the locking and extinguishing being caused by a thumb at the bottom, which turns on an eccentric, so that when the gauge is screwed on the lamp is locked by a catch, and when opened the light is extinguished.

THE GEOLOGICAL SOCIETY OF DUBLIN.

On Wednesday evening there was a general meeting of the society in the New Buildings, Trinity College.

The PRESIDENT (the Rev. Professor Haughton) in the chair. The minutes of the last meeting having been confirmed the following gentlemen were proposed and admitted members of the society:—Captain Meadows Taylor, Harold's-cross; Frederick H. Henry, Esq., Lodge Park, Straffan; J. S. Carter, Esq., Wallington Park, Tilsforth, England (non-resident life member). Associates—E. T. Quinton, 25, Leinster-road; J. Dickson, Mountjoy-place; W. H. Wynne, 12, Trinity College; and M. H. Ormsby, 16, Fitzwilliam-square.

Mr. R. H. Scott read a second notice of "The Granitic Rocks of Donegal, and the Minerals therewith associated," being a continuation of that read by him at the opening of the last season. He stated that since the date of that communication he had paid two visits to the county. The first of these was made in company with the President and Mr. Jukes, when he visited the northern part of the county, and the other in the course of last summer, when he was alone, and visited the district about the Bannmore mountains and Donegal, then went to the Rosses and spent some time in the examination of the island of Arranmore. In addition to this he had received some valuable information from Sir R. Griffith, who had been investigating the relations of the metamorphic rocks of Donegal, and was at present engaged on a similar task with reference to the analogous rocks in Scotland. The most important facts discovered during the progress of these investigations, which were carried on for the British Association (who had allotted a grant of 300, for the purpose, which was further increased by the sum of 100, from the Board of Trinity College), was the extreme similarity between the rocks of the north-west of Ireland and those of Scotland, the Scandinavian Peninsula, and the Laurentian and Huronian series in Canada, which have been described by Sir William Logan and Mr. T. Sterry Hunt. The latter gentleman had inspected the specimens from Donegal, on a recent visit which he paid to Ireland, and had recognised them, almost without exception, as being almost identical with Canadian specimens. Mr. Scott read numerous extracts from the writings of Keilhan, the great Norwegian geologist, from the Reports of the Geological Survey of Canada, and from a paper by Mr. MacFarlane, on the relation ship between the Canadian and Norwegian rocks. From these it appeared that the rocks, especially the quartzites and micaceous argillites were almost identical, and that as to the granites and syenites the descriptions of Keilhan might be taken to be accounts of the rocks of Ireland. As to the granite, Mr. Scott had seen no reason to change his view of its being a metamorphic rock, although dykes of the granite were discovered in several localities—viz., at Dunlewy, Glenelagh, and on the south side of Croby Head, at Pollnacilly. He alluded to the discovery of some minerals new to that part of Ireland, such as fibrolite (white kyanite), scapolite, and verde antique marble. Of the last-named rock a valuable deposit had been discovered by him at Croby Head, on the property of the Marquess of Conyngham, which is being worked by the Mineral Exploring Company. He went to Arranmore in the fall expectation of finding the same rocks there as there are to be met with at Croby, but in this he was disappointed, as he found almost the whole south coast of the island to be granite. The only place where he discovered rocks resembling those of Croby was along the north shore of the island. In addition to the minerals already described, Mr. Scott noticed the discovery of several others, some of which had been before observed in other parts of Ireland by the late Archdeacon Verschoyle, Sir C. Greeke, and others. He desired to express his thanks to Mr. W. Harte, C.E., the County Surveyor of the Western District, who had assisted him most materially in his valuable aid. The paper was illustrated by a copious series of specimens from the localities visited during the several tours.

The PRESIDENT said he was sure they had all heard the paper just read with great gratification. The matter of it would not be supposed to be merely of theoretical importance by any person who looked at the beautiful slab of serpentine which lay on the table as a specimen, and which the investigations of the British Association Committee in the western parts of Donegal had been the means of bringing under the notice of persons who he hoped would see the practical use of it.

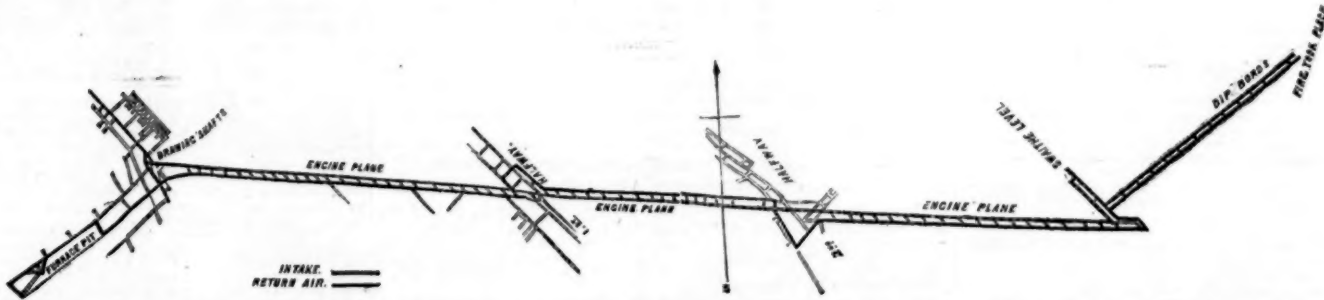
Mr. J. DUFFE JUKES said that Mr. Scott's paper had revived in him recollections of the tour which that gentleman, the President, and himself had made in the summer of last Easter. He was glad that the district they had traversed would hereafter come under the special care of the Geological Survey; for it was no part of their business to meddle with minerals—they had only to examine the rocks, and here they had the mineralogy done to their hand. From some things which fell from the President and from Mr. Scott during the progress of their tour, as well as from Dr. Sterry Hunt, as to the later tendencies of geologists, he thought it important at the present day to observe, that while they should give full value to mineralogical investigations, they should be on their guard lest they were led astray by them, for such investigations are not proof of geological identity. Rocks might be best for bed—variety for variety—the same as their minerals in Donegal, in Scotland, and in the bed of the St. Lawrence, and yet not be geologically the same rocks at all. With regard to the micaceous conglomerates, of which they had some specimens before them on the table, some persons were greatly disposed to deny that these were metamorphic rocks at all. He was not of this opinion, and he wished to remind the meeting that rocks containing fragments of quartz, similar to these Donegal conglomerates, were found in the Alps. The gneiss and mica schist of the Alps were not of the same age as ours at all. There were black slates found in the Alps in immediate connection with these metamorphic rocks, which contained butrimonite, which, therefore, indicated that the gneiss, &c., was also of secondary age. Black slates were common in Ireland, and elsewhere. In South America there were black slates, which were in a certain sense chalk beds. They must, therefore, be on their guard against jumping to conclusions from such evidence as that which had been adduced that the Donegal beds were contemporaneous with those of the Laurentian series. If rocks of the same general character, but of different age, were subjected to the same metamorphic actions, the result would be to produce similar mica schist and gneiss in both cases. He could bear testimony to the accuracy of Mr. Scott's descriptions, but while evidence had they as to the age of the mica schists of Donegal? Neither they nor the limestones contained any fossils, as he agreed with Mr. Scott that the concretions found near Culcairn were not of organic origin at all. What was found to be the fact about the North and West of Ireland? There was a carboniferous trough extending up through Cavan and Armagh into Tyrone. On the south-east side of this they had a series of slates, containing double graptolites and other Silurian fossils, which, however, extended up to near Dublin. On the other side of it there were these Donegal mica schists and gneissous beds. It was certainly probable that they were the identical beds which at the south-east side of the carboniferous trough contained fossils, but on the north-west side of it were metamorphic rocks of which they saw specimens before them. If not, he would ask what had become of the great thickness of Silurian slates which disappeared under the carboniferous basins. As regards the gneiss of the West of Scotland, which had been called Lewisian, or Hebridean, but which Sir R. Murchison was now disposed to call Laurentian, he thought that it was probably contemporaneous with the Laurentian gneiss. It was separated from the overlying fossiliferous strata, which were themselves of very old date, by another series of beds, with which it was unconformable, and which he himself was unconformable with the fossiliferous beds above. In the same way in Canada the Laurentian rocks were separated from the fossiliferous strata by two unconformabilities. Where you had, as here, three series of rocks, separated by well-marked gaps, he was disposed to think that there was some geological evidence of identity as to age between the lower members of the group, and he would admit that this was the case, although the rocks were identical in chemical constitution. As to Donegal, he would require much stricter proof than had been given to convince him that the metamorphic rocks of Donegal had anything to do with the Laurentian gneiss. He wished to express the most thorough satisfaction with the mode of investigation which they were pursuing now, because, even supposing it did not prove the chronological identity of the two formations in question, still it led to the acquisition of important, and, indeed, invaluable information as to the constitution of the rocks—good sound knowledge of matters of fact, of high importance and interest in themselves, even though it turned out that they were not adequate to bear the great weight of the superstructure of conclusions which might be laid upon them.

The PRESIDENT said he was sure the meeting felt indebted to Mr. Scott, not only for his paper, but also for the very interesting comment which it had drawn from Professor Jukes. He was not quite sure—if his own opinion were called for—whether he should side with Mr. Scott or Professor Jukes. On Professor Jukes's side they had the advantage of connecting the known with the unknown by two great gaps. On Mr. Scott's side they had a number of well-ascertained facts, which, according to Mr. Jukes, had but slight bearing on the question. He had a question to ask Mr. Scott—whether in the course of his tour he had found any Rapakivi?

Mr. Scott replied in the negative. However, he had hopes that this rock, so characteristic a feature of the granitic rocks of Finland, might, perhaps, be found in Scotland. He would remind the meeting that his paper contained no statements as to the absolute age of the Donegal rocks. The area of that county was too small to afford a sufficient district for observation. In his opinion, the battle of the world, he would must be fought in Scotland. As to the structure of the north-west of Ireland, he would remind Mr. Jukes that along the north-west flank of the carboniferous trough to which he had alluded, Silurian beds did reappear at Fomeroy and Lisbellaw, which at the former locality were separated from the mica schists by a ridge of granite. As regards the value of the mineralogical constitution for determining the age of the Donegal rocks, he was disposed to think that the facts which he had brought forward pointed to some other than a mere accidental coincidence of the composition of the strata. This he would point out by an instance taken from the occurrence of the verde antique marble on the table. Dr. T. S. Hunt, when in Ireland, had once asked him whether he had not discovered a light-coloured serpentine lying below the dark green serpentine of Aghavey, near Donegal, and separated from it by a considerable thickness of gneiss and granite. At that time Mr. Scott had only the specimens for a few days in Dublin, and had not mentioned the discovery of the marble to more than a few persons. Mr. Hunt attached great weight to the differences in chemical constitution between these two beds.—The meeting then adjourned to the second Wednesday in January.

NORTH OF ENGLAND INSTITUTE OF MINING ENGINEERS.—A general meeting of members was held on Dec. 6, at the Neville Hall, Newcastle-upon-Tyne. In the absence of the President, Mr. John Marley was voted to the chair, and the minutes of the council read over. The Chairman drew attention to the recommendation of the council, that the institute should subscribe 400, towards the expense of fitting up, in the Museum of the Natural History Society, cases for the reception of the mineral and other specimens belonging to the institute. He asked Mr. Berkeley, who was one of the sub-committee appointed to negotiate with the Natural History Society, to explain this matter to the institute. Mr. Berkeley

THE EDMUND'S MAIN COLLIERY EXPLOSION.



An abstract of the evidence already taken before the Coroner, relative to the explosion at the Edmund's Main Colliery, on Dec. 8, is published in the Supplement of this day's Journal, and a brief reference is made to a subsequent explosion which occurred on Wednesday morning last. We have since received some additional particulars concerning the latter event, and, through the courtesy of Mr. Joseph Mitchell, the managing partner in the colliery, we are enabled to give a plan of the engine-plane and dip-roads, which will show where the fire took place, and render any evidence that may be given intelligible to all. Mr. Mitchell does not accompany the plan with any details, upon the ground, which will all agree is tenable, that "pending the Coroner's inquest, he thinks, the proper course is for the facts to be established by impartial witnesses examined rather than by any statement of his, which, however truthfully and correctly given, would be open to imputations of one-sidedness." The proprietors of the colliery have certainly taken pains that all necessary data shall be at the disposal of the public, and if the cause of the calamity is not thoroughly investigated, it will not be from any obstacles raised by them.

The explosion on Wednesday was unattended by loss of life, but will probably have the effect of delaying the re-opening of the colliery for some time. On Wednesday morning a consultation was held for considering whether the attempt to recover the bodies should be proceeded with. The temperature of the air in the upcast shaft was taken to guide the engineers, and the condition of the atmosphere carefully noted. It was found that the temperature was still at 55° in the upcast, and 42° in the downcast shafts, as on Friday last. There was also a slight emission of smoke from the upcast shaft. A list of volunteers, most of whom were about the pit at the time, had been made out, and every requisite provided for descending and attempting to re-open the mine, if the engineers should so decide; but it was resolved to continue the pouring of water into the mine, and to defer any attempt to re-open it until a further consultation, to be held next week. Shortly after the consultation the wisdom of the decision became manifest; a sharp explosion occurred, driving a cloud of smoke and dust up the upcast, and shaking and breaking the downcast shaft gearing. A consultation was afterwards held, at which Mr. Morton, Messrs. Brown

and Jeffcock, Mr. Bartholemew, Mr. Cooper, of Parkgate Collieries; Mr. R. R. Maddison, and Mr. Mitchell, jun., were present, and it was unanimously determined to fill up the upcast shaft to the depth of 16 yards—10 yards above all communication with the workings—with earth and clay; to cover with planks, earth, and puddle the mouths of the two downcast shafts, so as effectually to shut out the air; and to flood the whole dip workings up to the engine-shaft with water. The water is now supposed to have reached the second half-way. Though arrangements were being made last evening for largely augmenting the present stream of water, so as to expedite the filling of the mine, the process of drawing out the water again when the fire shall have been extinguished will be very protracted and tedious, as well as very costly; and several months will probably elapse before the pit can be re-opened, and the bodies of the dead recovered. Some thousands of pounds will be swallowed in the stoppage and the expenditure, and meanwhile nearly 300 men and youths are thrown out of employment. Various theories and rumours are afloat as to the cause of the explosion.

said that the sub-committee had had an interview with the Natural History Society that morning, and ascertained that their rooms were nearly ready for the reception of the specimens. It was proposed that the "Hutton Collection" should be kept together, in one separate room, other specimens in the gallery of the smaller room. The remaining minerals, &c., would be labelled with the initials of the institute, so as to retain their proprietorship. These would be mixed in their proper order with the other specimens belonging to the Natural History Society, so that both collections would be rendered available, in the best manner, to persons wishing to study them—and, in fact, to the public generally. Mr. Potter asked if the catalogues would be the property of the institute?—Mr. Berkeley: No; it would belong to the Natural History Society.—Mr. John Ramsay understood that the institute became members of the Natural History Society; in addition to this donation of 40%, they would be subscribers of 20% annually to aid in the maintenance of a curator, &c.—Mr. Berkeley: The institute would be represented in the council of the Natural History Society. The confirmation of the recommendation of the council was moved and carried. The meeting then proceeded to fill the office of vice-president, vacant by the death of the late Mr. W. Anderson; and on the votes being taken, Mr. Hugh Taylor, of Earsdon, Chairman of the Coal Trade, was elected. In the absence of Mr. Coulson and Mr. Greene, the discussions on the papers announced were again adjourned.

INSTITUTION OF CIVIL ENGINEERS.—At the annual meeting, on Tuesday, Telford Medals were presented to Sir Charles A. Hartley, Messrs. J. H. Miller, J. Paton, J. Abernethy, and J. Bailey Denton; a Watt Medal to Mr. J. D. A. Samuda; a Stephenson Prize of 25 guineas to Sir C. A. Hartley; Miller Prizes, of 15 guineas each, to Messrs. J. H. Miller and J. Paton; Council Premiums of Books to Captain D. Galton, R.E., and Messrs. J. Brunles, H. C. Forde, C. W. Siemens, J. A. Longridge, and J. Oldham; and the Manby Premium in Books to Sir C. A. Hartley.

JOINT-STOCK COMPANY PROSPECTUSES.

TO THE EDITOR OF THE MINING JOURNAL.
SIR,—The following copies of notes, remaining without written replies, furnish another instance of the unlimited confidence on the part of the public demanded by the directors of companies under "limited liability":—

36, Cannon-street, Dec. 6.
SIR,—In your prospectus it is stated that the price of the estates purchased by the directors will be payable to the sellers nearly three-fourths in shares, but no mention is made of the aggregate amount. Will you oblige by stating what that sum is?
H. S. RANSOM, Esq., Sec. of the Plantation Company of Western J. LEE STEVENS.
Hindustan (Limited), 33, Cornhill.

36, Cannon-street, Dec. 6.
H. S. RANSOM, Esq.—I do not understand the verbal answer sent by the boy who delivered my letter to you on Saturday, and to which I request the favour of a written reply. Surely there can be no reason for concealing the amount to be paid by a joint-stock company for property constituting the basis upon which its capital is sought to be subscribed.
J. LEE STEVENS.

In non-reply is also indicated the overweening conceit of official position and dignity, to the elimination of ordinary courtesy, on the part of a secretary.

Relative to another undertaking I wrote as follows yesterday:—

36, Cannon-street, Dec. 18.

SIR,—My opinion is asked upon the bona fide character of your undertaking, by probable applicants for shares, and shall be glad to receive replies to the following queries to guide them thereon:—

1. In the third paragraph of the prospectus the coal is described as "highly bituminous," the Imperial Royal Bergwerks-Act, Franz Rath, calls it "a fine coal, formerly known as the common name for anthracite, or non-bituminous coal, in this country; and Mr. John Brown reports that "the coal (yours) is of an ordinary hard and somewhat coarse nature." &c. Which of the three descriptions is correct?

2. The thickness of the 14 seams is disclaimed given in the fourth paragraph of the prospectus, and in the respective reports signed Franz Rath and John Brown. No two of the three being alike, which of them should be accepted?

3. Will the property, for which it is proposed to give 35,000l., include the roads, railway, tram, &c., described (colliery works, and all together) as having cost 100,000l.?

4. Will the proposed capital of 50,000l. suffice to work such an extensive colliery, provision being made for the purchase—35,000l., the incidental expenses of establishing the company, and the further outlay of 20,000l., estimated to be necessary by Mr. Brown?

Your immediate attention will be esteemed a favour.

Mr. Henry James, Sec. of the Victoria Colliery Company (Limited).

Shortly after his receipt of my letter, Mr. James favoured me with a call, offering to give me, orally, the information desired; but, agreeably with my wish, he promised to send me, without delay, a written reply; and, as no such communication has reached me, I leave him to respond through the medium of your columns. I am not, nor are my private friends, entitled to any exclusive knowledge upon a subject essentially interesting to all who subscribe to the funds of joint-stock companies.

36, Cannon-street, Dec. 19. J. LEE STEVENS.

DRIVING BANDS.—Mechanicians have for years past been strenuously exerting their talents to perfect driving bands for machinery which should possess some of the many requirements for the purposes to which they are applied. To embody all the desiderata was, even with the sanguine, almost too much to expect. But this has really been done, and placed beyond a doubt, by Messrs. Spill and Co. We understand that the official tests have been of the most trying character, and the success equally complete. Those interested can, however, examine for themselves these flexible and powerful bands at the works at Hackney Wick, where the whole of the extensive machinery is driven by them.

MONSTER WIRE-ROPE.—On Saturday last, a wire-rope, measuring 600 yards long, and weighing 31 tons, was turned out of the manufactory of Messrs. Cam, Elliott, and Co., West Bate Docks, Cardiff. This enormous length of rope was slowly coiled up in six wagons, belonging to the Rhymney Railway Company, on whose line it was forwarded to Hereford, thence to Liverpool, to be used at the Victoria Tunnel of the London and North-Western Railway Company.—*Merthyr Guardian.*

FRIGHTFUL DEATH IN A COAL MINE.—A shocking accident occurred at the Glider Hill Colliery, near Nottingham. It was the duty of a youth, named G. Gray, to couple the wagons together which carry the coal on a tramway to the bottom of the shaft. By some means or other he became entangled with the wagons, and, the horses suddenly starting off, he was carried along at considerable speed, and dashed with great violence against a doorway cut out in the rock. His head and neck were frightfully mangled, and one of his legs broken. Death must have been instantaneous.

A COLLIERY ON FIRE.—Rather more than a week ago it was discovered that the coal at the bottom of the furnace shaft of the Victoria Colliery (Stanley) had been ignited by the heat of the furnace. The colliery is the property of Messrs. R. Hudson and Co., and there are four shafts connected with each other. After efforts had been made to extinguish the flames, it was found that the only way by which the flames could be effected would be by filling up all the shafts for a few yards from the bottom. This step was decided upon after consultation with Mr. Holt, mining engineer, and Mr. Morton, the Government Inspector, and on Sunday the manager had the work effected. The fire, it is supposed, is still burning, and it will be some months before the colliery can be reopened. The closing of the works will entail a very heavy loss on the owners.—*Lancs Mercury.*

HOLLOWAY'S PILLS—EARLY MEANS.—No part of the human machine requires more watching than the nervous system—upon it hangs health and life itself. Nerves are the best regulators and strengtheners of the nerves, and the safest general laxative. Nausea, headache, giddiness, numbness, and mental apathy yield to them. At the pit of the stomach, the distressing dyspeptic symptoms, stomachic derangement, and confined bowels—the commonly accompanying signs of defective or deranged nervous power. Holloway's Pills are particularly recommended to persons of staid and sedentary habits, who gradually sink into a nervous and debilitated state unless some such live such as his pills be occasionally applied.

LANCASHIRE RELIEF FUND.—We have received from Mr. H. E. Croker, of Plymouth, 11. 3s. 9d., which was subscribed by the miners at Redmoor (10s. 3d.), and Wheel Crebor (13s. 6d.), in aid of the distress in Lancashire. The amount has been paid to the Lord Mayor at the Mansion House.

HYDROGEN GAS.—Mr. Christopher Binks, Parliament-street, proposes to obtain hydrogen gas by the decomposition of steam, such steam being passed through wood, charcoal, coal, or coke. It has hitherto been usual to heat the wood, charcoal, coal, or coke, and then pass the steam at the ordinary temperature through them, but as an improvement upon this, Mr. Binks proposes to superheat the steam, and keep it at a high temperature while it is passed through the wood, charcoal, coal, or coke, at an ordinary temperature, the result being that the hydrogen is more cheaply and readily produced.

SALE OF MINE SHARES.—On Thursday, Mr. T. P. Thomas sold by public auction, at Garraway's, the following property:—30 North Laxey, at 7s. 6d.; 35 East Rosewarne, 35s.; 51 Wheel Unity (forfeited for non-payment of calls), 10s. 6d.; 705 ditto (forfeited), 10s.; 39 ditto (forfeited), 9s. 9d.; 216 ditto (forfeited), 9s. 6d.; 320 East Beam, 5s. 6d.; 50 ditto, 5s.; 10 Wheel Norris, 29s.; 70 ditto, 26s.; 10 Rosewarne Consols, 31.; 10 ditto, 21. 16s. 6d.

THAMES TUNNEL COMPANY.—Receipts for the week ending Dec. 13, 31. 18s. 4d.; number of passengers, 17,740.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending December 14 was 11,200l. 9s. 4d.

THE LAW OF MINES.—The new work on the Law of Mines, by Mr. Whittow Arundell, is the only cheap book in which the entire subject is completely and ably handled, and no work can be more profitably studied, after the company is formed, than this. The law of mines is in this work treated quite irrespective of the law of mining companies, which are entirely governed by the new Joint Stock Companies Act of 1862. Mr. Arundell's work will be forwarded from our office on receipt of a Post-office order for 4s.

"CORNISH NOTES."—The first edition of the "Notes made during a recent tour in Cornwall and Devon," by Mr. J. Y. Watson, F.G.S., having been sold, a second edition, revised by the Author, has been printed and copies, 1s. each, can be had of Messrs. Watson and Cuell, St. Michael's Alley, Cornhill, or at the Mining Journal office, 26, Fleet-street, London.

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.

STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:

REFINED METALLIC NICKEL. OXIDE OF COBALT. [WIRE, &c.]

REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET

NICKEL AND COBALT ORES PURCHASED.

THE WEST OF ENGLAND COLLIERY AND IRON MINING COMPANY (LIMITED).

Capital £50,000, in 10,000 shares of £5 each, with power to increase to £100,000.

£1 per share payable on application, and a further sum of £1 per share on allotment.

No further call to be made for six months.

This company has been incorporated for the purpose of purchasing, or leasing and working, collieries and iron mines in the Forest of Dean, also dealing in coal and iron ore. It is proposed in the first instance to commence operations by the leasing of all that property known as the Speech House Hill Works, which are comprised of that portion of the Royal Forester Colliery lying on the land, or rise, side of a level to be driven from the bottom of a pit shaft sunk at a certain spot, indicated on the plans of the Commissioners in charge of the Forest of Dean as the "Speculation" Gale Mark. Also, the leasing of that other property, called Catch Colliery, agreements for each of which have been entered into between the promoters of this company and their respective proprietors.

Each of these properties are fully described in the "Award Book" of the Commissioners appointed by Act of Parliament (1st and 2d Vic., cap. 43), and are most advantageously situated.

The Speech House Hill Works are six miles from the shipping port of Lydney, and are connected with the Great Western and South Wales Railways at that place. The Catch Colliery is situated about four miles from Lydney, and is also connected with the before-named railways and shipping port in the same manner—viz., by means of the Severn and Wye Railway, which is carried to the pits of both collieries.

The facilities for the transit of the produce, both by rail and sea, are, therefore, of the best description; and what will still further enhance the value of these properties is the projection of another line of railroad, under the auspices of the Commissioners of Woods (the construction of which will shortly be commenced) from the Forest of Dean, to join the West Midland Railway; thus, inasmuch as it will be carried past each of these collieries, it will bring them into direct communication with Herefordshire and the Midland Counties, obviating the long and expensive route of conveyance which until the present time has been the only one available.

The combined area of these collieries is about 300 acres, containing seven veins of coal, which are the same as are worked at the celebrated Bilson, Crumplemead, Lightmoor, and Parkend Collieries, the latter of which they immediately adjoin.

The quality of the coal is well known in all parts of the West of England, and the demand for this special character exceeds the supply.

Four of the veins are already won by means of three shafts—viz., Smyth Coal, Parkend High Delf, Starkey, Rocky, and Churchway High Delf, and may be immediately worked to the extent of 80 tons per day, which can be increased to 300 tons per day within six months, by the erection of a new engine at each colliery.

The works are perfectly free from fire or choke-damp, and this fact in itself increases their value, in consequence of the immense saving that must be naturally effected where provision against the calamities produced by such causes is unnecessary.

The coal will bear a profit, the minimum average of which it is considered will realize 2s. per ton; and taking the output at 300 tons per day, the net profit per annum will amount to £9,000, or 18 per cent. on a paid-up capital of £50,000; but supposing operations are confined to the works at present proposed, it will not be necessary to have the full amount of the shares paid up, therefore the dividends will in reality greatly exceed the foregoing estimate.

It is computed that these collieries contain upwards of 4,000,000 tons of coal, and that it will require a period of 45 years to exhaust this quantity, provided the daily produce is 300 tons.

The Speech House Hill Works are thoroughly drained, by means of a steam-engine and an effective set of pumps, which throw the water into an adit level driven into the pits from the adjoining valley; this not only drains the land or rise workings, but also renders unnecessary the forcing of the water from the deep workings to the surface, inasmuch as the adit receives it about 50 yards below the top of the pits.

The Catch Colliery is drained by the Parkend Works on the dip side, and by the Standfast on the land, or rise, side.

The undertakings of this company differ altogether from the greater number for which companies are incorporated, as in most instances shareholders have to subscribe their capital for the purpose of sinking shafts, and that upon unproved coal, but in this case three shafts have been sunk, the coal thoroughly proved, water level driven into the workings, engine and pumps have been erected, and the whole is now open for inspection.

The company has secured these collieries upon very advantageous terms, the vendor having agreed to receive one-third the amount of the purchase money of plant, machinery, rolling stock, &c., at present on the works, and that of the two extra engines—viz., one 30 horse power, and one 60 horse power—boilers, machinery, and buildings before spoken of, which he undertakes to erect in six months from the date of lease, in paid-up shares of the company. The other portion to be paid by instalments in cash, ranging over a period of nine months. £10,000 is the total amount of purchase money, to be paid thus:—£3,000 upon signature of lease, £2,000 in three months afterwards, £1,666 at the expiration of nine months from date of lease, and the remaining £3,334 in paid-up shares.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA
IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 23d instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to SUPPLY—

CAKE COPPER.

And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 23d day of December, 1862, after which hour no tender will be received.

India Office, December 12, 1862.

HEMATITE IRON ORE—WANTED, A PURCHASER for a WELL PROVED, VALUABLE MINE, producing the above kind of ore. Or, a PARTY to JOIN, on liberal terms, in WORKING the same. Dues, 6d. per ton only, apply to "J. R." Post-office, St. Austell, Cornwall, of whom particulars and samples may be had.

NOTICE.—ANY PERSON HAVING ANY CLAIM on the ADVENTURERS OF TREHILL MINE, FORMERLY KNOWN AS GREAT SHEBA MINE, situate in the parish of STOKE CLIMSLAND, in the county of CORNWALL, are REQUESTED to SEND the SAME FORTHWITH to Captain H. RICKARD, on the mine.—Dated December 17, 1862.

NOTICE.

GREAT WHEEL ALFRED.—The Committee beg to inform the shareholders that the greater portion of the machinery and materials has been sold, payments for which are in course of collection. The committee intend to convene a GENERAL MEETING of the shareholders at the end of JANUARY NEXT, when the accounts will be laid before them. Every information will be given to the shareholders on application at the office. D. COHEN, Sec.

5, Bank Chambers, Lothbury, E.C., December 19, 1862.

STRATHALBYN MINING AND SMELTING COMPANY

(LIMITED).—Notice is hereby given, that the OFFICE of the above company will be REMOVED from 15, Finch-lane, Cornhill, London, to ST. MICHAEL'S HOUSE, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, on the 28th inst.

JEHU HITCHINS, Sec.

CARYSFORT MINING COMPANY (LIMITED).—Notice is hereby given, that the ORDINARY HALF-YEARLY MEETING of the Carysfort Mining Company (Limited) will be HELD on MONDAY, the 8th day of January, 1863, at the hour of Twelve o'clock noon, at their office, No. 65, Dame-street, Dublin, for the purpose of submitting the directors' report, and statement of accounts, for the half-year ending the 31st October last; and for the transaction of the other ordinary business of the company.

By order, W. R. FAYLE, Sec.

65, Dame-street, Dublin, December 18, 1862.

W H E A L C U R T I S .

Held on lease for 21 years, at 1-18th dues.

In 1024 shares. On the "COST-BOOK PRINCIPLE."

Deposit, £1 per share.

All further calls to be made by the shareholders.

MANAGER—Capt. Henry Skewis, Camborne.

PURSER—Mr. Benjamin Matthews, St. Day, Cornwall.

ENGINEERS—Messrs. Loam and Son, Scorier, St. Day.

BANKERS—Messrs. Willems, Williams, and Co., Camborne.

SECRETARY—Mr. J. E. Square, 196, Gresham-house, London, E.C.

This mine is situated in the parish of Crowan, in the county of Cornwall, at a convenient distance from the ports of Hayle, Marazion, Fowles, and Gweek, also from the towns of Camborne and Helston.

The mine extends about 700 fms. east to west on the course of the lodes, and 400 fms. in width from north to south. There are four known lodes in the sett, well defined, running through a stratum of clay-slate, which has proved exceedingly rich in mineral deposit, particularly of copper ores, and the district has been one of the most productive in Cornwall.

These lodes are very nearly parallel with the Wheal Abraham and Crenner lodes, which from 40 to 50 years since yielded such vast quantities of copper ore—110,000 tons were raised from one lode alone. The geological formation throughout both mines is precisely the same.

This mine is wrought to the 47 fm. level under the adit, on the Curtis lode only, from which upwards of £10,000 worth of ores has been returned, and was, at the same depth and to the extent opened up, as productive as Wheal Abraham, which at a greater depth proved very rich. The lodes in this mine are intersected by cross-courses, elvans, and bookans, the value of which in this locality requires no comment; and it should be remarked that the large elvan course which traverses the whole district stands in the same position to Curtis as it does to Wheal Abraham, both lying to the east of it, besides the lodes bearing a close resemblance in their constituent parts. Therefore, a well-founded expectation may be entertained that this mine, when properly developed, will make large and profitable returns.

The adit, which is 16 fms. deep, is clear and secure. There is a new engine-shaft sunk 35 fms. below adit, which is expected to meet the Curtis lode in the 70 fm. level; and this shaft shall have been sunk 15 fms. deeper, to the 50, it will then be 7 fms. under the bottom of the former working. There is also a very substantial engine-house on this shaft, suited to a powerful engine; these, together with a large amount of preparatory work done, will be of considerable advantage, and effect a saving of £2000 to the company. It has been found by careful estimate that the outside cost of developing the mine cannot exceed £12,000.

The Dumping lode lies a little to the south of the Curtis, and the ground being soft can be easily intersected by cross-cuts; this lode in the western part of the sett was, as far as opened up, productive, and report speaks very highly of it; the other lodes also can be opened up by cross-cuts at little expense.

The promoters offer to the public the 1024 shares, only stipulating that at the first meeting of the shareholders an adequate amount shall be awarded as a compensation for the time employed and expenses incurred.

The reports of Capt. John Delbridge, who was agent on the mine at the former working, Charles Thomas, of Dolcoath, Camborne, John Vivian, Joseph Vivian, of North Roazek, Camborne, Nicholas Vivian, late of Condorow, Camborne, Capt. John Vivian and others, who knew the mine in its last working, together with a list of 600 shares, of which 246 are held in Camborne and Crowan, and 154 in other parts of Cornwall, may be seen at the office of the company, 196, Gresham House, London, E.C.

ACCIDENTS ARE UNAVOIDABLE!

Every one should therefore provide against them.

THE RAILWAY PASSENGERS ASSURANCE COMPANY

Grant Policies for Sums from £100 to £1000, Assuring against

ACCIDENTS OF ALL KINDS.

An annual payment of £3 secures £1000 in case of DEATH by ACCIDENT, or a weekly allowance of £6 to the assured while laid up by injury.

Apply for forms of proposal, or any information, to the Provincial Agents, the Booking Clerks at the Railway Stations.

Or to the Head Office, 61, CORNHILL, LONDON, E.C.

£102,817 have been paid by this company as Compensation for 56 fatal Cases, and 5041 Cases of personal injury.

The SOLE COMPANY privileged to issue RAILWAY JOURNEY INSURANCE

TICKETS, costing 1d., 3d., or 5d., at all the Principal Stations.

Empowered by Special Act of Parliament, 1849.

61, Cornhill, E.C. WILLIAM J. VIAN, Sec.

NEW HANDBOOK FOR MINERS AND MINE ADVENTURERS.

Price 1s. 6d.

MANUAL FOR EXPLORERS:

Containing Practical Instructions in Searching for and Testing the Value of Metallic Ores.

Mining Engineers, of Montreal, Canada.

This manual contains sufficient information to enable the student to distinguish the several metals, and to make a rough analysis, either by the blow-pipe test or by the wet way.

London: Mining Journal office, 26, Fleet-street, E.C.

THE GREENLAND COMPANY (LIMITED).
For Trading in Furs, Skins, Oils, and Minerals, under special concessions granted by His Majesty the King of Denmark.
Capital £100,000, in 20,000 shares of £5 each.
CHAIRMAN.
Sir WALTER CALVERLEY TREVELYAN, Bart., Wallington, Newcastle-on-Tyne,
(Chairman of the Wansbeck Railway).
DEPUTY CHAIRMAN.
Dr. J. RAE (late of the Hudson's Bay Company).
BANKERS—The London and Westminster Bank.
SECRETARY (pro tem.) J. W. Taylor, Esq.
SOLICITORS—Messrs. Ashurst, Son, and Morris, 6, Old Jewry.

Special charters having been granted by the Danish Government conferring an exclusive monopoly of trade in furs, skins, oils, &c., along the whole of the east coast of Greenland, and also for working mines of copper, tin, lead, &c., on the west coast, this company will, under the provisions of these grants, carry on a trade similar to that of the Hudson's Bay Company in North America.
The trade of the west coast has been carried on for many years by the Danish Government, and according to the return of Dr. Rink, Inspector of Greenland trade, the value of the produce annually imported into Copenhagen is in round numbers \$500,000; and the trade is prosecuted more for the purpose of civilising the natives than for profit, the returns, according to the same authority, average 34 per cent. per annum on the capital employed.
Detailed prospectuses can be obtained of Messrs. CAYELL and STRACHAN, stock and sharebrokers, 20, Cornhill; and of the secretary, at the office of the company, 35, Broad-street-buildings, London.

TREGURTHA DOWNS AND OWEN VEAN CONSOLS MINING COMPANY (LIMITED).
ST. HILARY AND PERRANUTHNOE, CORNWALL.
Capital, £40,000, in 16,000 shares, of £2 10s. each.
Deposit, 5s. per share on application, and 15s. on allotment.
BANKERS.
Union Bank of London, Princes-street.
Messrs. Vivian, Grylls, Kendall, and Co. Helston.
Messrs. Bolitho, Sons, and Co., Penzance.
SOLICITORS.
H. Grylls Hill, Esq., 17, Barge-yard Chambers, London.
Messrs. Grylls, Hill, and Hill, Helston.
LONDON MANAGERS—Messrs. Dunsford and Ranken, 9, Broad-street-buildings.

These mines are in a district in Cornwall, which has yielded copper and tin worth from £8,000,000 to £10,000,000 sterling.
The reports are unusually numerous and favourable, and by miners of the highest reputation.
Detailed prospectuses, with maps, plans, reports, forms of application, and all information may be obtained of Messrs. Dunsford and Ranken, No. 9, Broad-street-buildings, and will be forwarded by post on application.

THE GREAT LAXEY MINING COMPANY (LIMITED).
Capital, £50,000, in 15,000 shares of £3 each.
Present issue, 2500 shares.
£1 per share to be paid on application, £1 on allotment, and £2 at three months from the date of allotment.
DIRECTORS.
GEORGE W. DUMBELL, Esq., Belmont, Isle of Man.
WILLIAM BECKWITH, Esq., Harcourt, Isle of Man.
ROBERT COCHRANE, Esq., Douglas, Isle of Man.
THOMAS D. PRICE, Esq., 8, Union-terrace, Queen's-road, Peckham.
WILLIAM TUXFORD, Esq., 106, Upper Thames-street.
MANAGER—Capt. Richard Rowe.
BANKERS.
Messrs. Glyn, Mills, and Co., London.
Messrs. Dumbell, Son, and Howard, Isle of Man.

This company has for its object to bring under the Limited Liability Acts the company which has hitherto worked the celebrated Laxeys Mines, in the Isle of Man, and also to raise additional capital to further develop certain portions of this rich and valuable sett.

These mines have been in operation for about 40 years, and under the present management alone have paid in dividends £1420 on each £100 share, besides expending from £40,000 to £50,000 in plant and machinery.
As at present worked they are yielding a profit of from £500 to £600 per month. The new capital to be raised is for the purpose of developing a lode at Snaefell, in the same sett, and will participate in the profits from the whole mines.
The Laxeys Mining Company (Limited) offers a certain dividend of 12 to 15 per cent., shortly to be considerably increased from resources already developed, whilst at the same time it offers a reasonable expectation of an early paying mine at Snaefell, respecting which lode Prof. Warrington Smyth, the Government Inspector of the Crown Mines, remarks:—"The character of the lode is so bold, and that of the ore so massive and strong, that I could give a very good character of it as a speculation."
Detailed prospectuses, and forms of application, may be had on application to the secretary, Mr. THOS. THOMPSON, at the company's offices, 12, Old Jewry Chambers, London, E.C.

THE GREAT DEVON AND BEDFORD (COLCHARTON) COPPER MINING COMPANY (LIMITED).
TAVISTOCK, DEVON.
Incorporated pursuant to the Companies Act, 1862.
Capital £25,000, in 10,000 shares of £2 10s. each.
Deposit, 10s. per share on application, and £1 on allotment.
DIRECTORS.
HENRY ARUNDEL MARTYN FARRANT, Esq., Norfolk-buildings, Bath.
EVAN HARE, Esq., 1, Mitre-court, Temple.
JOHN INGLEDEW, Esq., Crowland House, Islington.
JOHN LUNTLEY, Esq., 42, Bishopgate-street Without.
JOHN MARTIN, Esq., Enfield-road, Hackney.
SOLICITORS—Messrs. Hare and Whitfield, 1, Mitre-court, Temple.
BANKERS—The City Bank, Threadneedle-street.
BROKER—Septimus Parrott, Esq., 1, Crown-court, Threadneedle-street.
SECRETARY (pro tem.)—Mr. H. Brook.
OFFICE (pro tem.)—Mr. H. Brook.

1, WINCHESTER BUILDINGS, OLD BROAD STREET, CITY, E.C.
The object of this company is to purchase the freehold estate of Colcharton, and to develop its mineral wealth. The estate is surrounded by productive mines, being bounded on nearly three sides by the Devon Great Consols sett, and on the remaining portion by the Bedford United and Wheal Crebor. Four main lodes of the above mines pass through the estate, intersected by a cross-course and caunter lode. It consists of 67 acres of well cultivated land, with homestead, &c., and the purchase will be effected for £10,000 in cash and £50,000 in shares, leaving £10,000 for working capital. The quays on the Tamar being only 2½ miles distant, offer great facilities for carriage. Large profits may reasonably be anticipated from land so rich in minerals, considering the entire exemption of this company from the usual royalties, and that the adjoining Devon Great Consols returns £50 in yearly dividends on each £1 share, after paying royalties. Favourable reports have been obtained from the best authorities. The following is from the manager of the Devon Great Consols:—

"Devon Great Consols Mine, Oct. 21, 1862.—At your request, I have surveyed the Colcharton mining sett, in the parish of Tavistock. This property is situated in the immediate neighbourhood of the most productive mines of the Tavistock district, and the geological features are precisely similar. It is bounded on the north, east, and west by the southern portion of the Devon Great Consols, and south by Wheal Crebor; and comprises within its limits the Devon Great Consols Wheal Thomas lode, and the Tavistock, as well as the main lode of the Bedford United Mines. It is also traversed by the Wheal Crebor cross-course; and being in the midst of the good mines above mentioned there is every probability of its proving a successful speculation. JAMES RICHARDS.

Many other reports, with prospectuses and forms of applications for shares, may be obtained at the office of the company, and of the broker.
The LIST OF APPLICATIONS FOR SHARES will CLOSE in a FEW DAYS.

THE ROARING WATER MINING COMPANY (LIMITED).
Incorporated pursuant to the Joint Stock Companies Acts, 1862.
Capital, £18,000, in 6000 shares of £3 each.
10s. to be paid on application, and 10s. on allotment.
DIRECTORS.

Sir JAMES DOUBRAIN, Monkstown, and 30, Molesworth-street, Dublin.
Colonel BUSH, 58, York-terrace, Regent's Park (Director of the Oriental Inland Steam Navigation Company).
CHARLES T. HAWKINS, Esq., 12, Broad-street, Oxford (Director of the St. Just Mines).
WILLIAM OGILVIE, Esq., Cushion-court, Old Broad-street (Director of the St. Just Mines).
Captain PAUL, Queen's-road, Bayswater (late of the Knockmahon Mines).
H. CHURCHILL, Esq., Deddington, Oxfordshire (Director of the Strand Hotel Company).
BANKERS—London and County Bank, Lombard-street.
SOLICITORS.

Messrs. Meyrick and Gedge, 4, Storey's Gate, Great George-street, Westminster.
AUDITORS—Messrs. Cooper Brothers, public accountants, George-street, Mansion House, BROMLEY.
Messrs. Webb and Geach, 8, Finch-lane, Threadneedle-street, London.
Messrs. J. and J. Stephens and Son, 44, Dame-street, Dublin.
Robert McEwen, Esq., Ducie-buildings, Bank-street, Manchester.
MANAGER—Mr. Thomas Cooper Smith.
OFFICES—5, WARFORD COURT, THROGMORTON STREET, CITY.

The object of this company is to work the copper mines of Roaring Water, situated in the county of Cork, a district well known among mineralogists as being rich in mineral deposits. The sett extends over 1½ mile in length, and ¾ of a mile in breadth, and is held for a term of 31 years from July last, at a royalty of 1-18th, with a clause for renewal, on payment of a comparatively small fine at the end of that period, for the same term.

The promising character of the mines proposed to be worked by the present company fully warrants the expectation that early returns will be realized; there are 19 well-defined lodes upon the sett, composed principally of yellow and peacock copper ores, rich specimens of malachite, friable quartz, and gossan of the finest description, from which many tons of rich ore have been taken, which on assay have been found to contain a large proportion of silver, and strong traces of gold. These lodes beyond all doubt are a continuation of the rich veins of copper now working with such great promise and success at the Schull Bay, Cappagh, and Dalycumshack Mines, all of which there can be no reasonable doubt are a continuation of the Berehaven lodes, which have returned enormous profits.

The several reports are from men of long practical experience, their testimony as to the highly-promising character of the property, and the great local advantages by which it is surrounded will be read with interest, and leave nothing to be urged by the directors, except an assurance of their strong confidence as to its value, and that this property will bear comparison with any of the rich mines opened in the district.

A large portion of the capital has been subscribed.
Applications for shares to be made to the bankers, directors, solicitors, brokers, and the manager, at the office of the company, where prospectuses and forms of application may be obtained; also reports on the mines from Capt. HENRY THOMAS; Capt. PAUL, late of the Knockmahon Mines; Capt. CANTHREW, of the St. Just Mines; Capt. MARTIN BOWEN, of Dublin; and Capt. JAMES HOSKING, late of the South Cork Mines.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL HENRY MINING COMPANY.—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 31 day of January next, to SEND in their NAMES and ADDRESSES, and the AMOUNTS and PARTICULARS of their SEVERAL CLAIMS on the said company, to William Michell, Esq., the Registrar of the said Court, at his office, Truro. Dated this 17th day of December, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL EMILY MINING COMPANY.—The Registrar of this Court has appointed the 16th day of January, 1863, at the Registrar's office, at Truro, to SETTLE the LIST of CONTRIBUTORIES of the ABOVE COMPANY, now made out and deposited at the said office. WILLIAM MICHELL, Registrar of the said Court. Dated this 17th day of December, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the TREFULACK UNITED MINING COMPANY.—The Registrar of this Court has appointed the 16th day of January, 1863, at the Registrar's office, at Truro, to SETTLE the LIST of CONTRIBUTORIES of the ABOVE COMPANY, now made out and deposited at the said office. WILLIAM MICHELL, Registrar of the said Court. Dated this 17th day of December, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the SOUTH WHEAL KITTY MINING COMPANY.—The Registrar of this Court has appointed the 16th day of January, 1863, at the Registrar's office, at Truro, to SETTLE the LIST of CONTRIBUTORIES of the ABOVE COMPANY, now made out and deposited at the said office. WILLIAM MICHELL, Registrar of the said Court. Dated this 17th day of December, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL FURSDON MINING COMPANY.—The Registrar of this Court has appointed the 16th day of January, 1863, at the Registrar's office, at Truro, to SETTLE the LIST of CONTRIBUTORIES of the ABOVE COMPANY, now made out and deposited at the said office. WILLIAM MICHELL, Registrar of the said Court. Dated this 17th day of December, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL HENRY MINING COMPANY.—THE BE SOLD, under the direction of the Registrar of this Court, BY PUBLIC AUCTION, on Tuesday, the 30th day of December inst., at Eleven o'clock in the forenoon, the undermentioned MINING MACHINERY and MATERIALS, viz:—

ONE ENGINE, 26 in. cylinder, with fly-wheel, spur and crown wheels, BOILER 8 tons; 100 fms. of 6 in. wood rods, with pulleys and stands; 80 fms. of 7 in. pumps, 2 balance bolts, 2 plunger poles, with stuffing boxes and glands to match; capstan, shears, horse wheel and shaft tackle, 70 fms. of whim rope, 80 fms. of ladders, tram wagon, 26 in. 11 pieces, 5 in. 4 in. woodbores, 5 in. 2 in. doorpieces, 2 top doorpieces, 2 whim kibbles, 2 shears, blacksmith's shop, bellows, anvil, 2 hammers, a quantity of old iron and rope, counting-house furniture, including a dining table, mahogany sideboard, 14 chairs, cooking apparatus, and a variety of other MATERIALS and EFFECTS in general use in mines.
H. S. STOKES, Solicitor, Truro (Agent for Frederick Hill, solicitor, Helston).
Dated this 17th day of December, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL NELSON MINING COMPANY.—Notice is hereby given, that a PETITION for WINDING-UP the ABOVE-NAMED COMPANY by the Court was, on the 12th day of December inst., presented to the Vice-Warden of the Stannaries by William Norton, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the office of Winslow Jones, Esq., solicitor, Cathedral-yard, Exeter, on the 31st day of December inst., at One o'clock in the afternoon.

Any contributory or creditor of the said company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agents, of his intention to do so, such notice to be forthwith forwarded to the secretary of the Vice-Warden, P. P. Smith, Esq., Truro, Cornwall. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.
Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 27th day of December inst., and notice thereof must at the same time be given to the petitioner, his solicitor, or agents.
HENRY SEWELL STOKES, Truro, Cornwall (Solicitor for the petitioner).
J. E. AND FOX, 40, Finsbury-circus, London (Agents of the said solicitor).
Dated Registrar's Office, Truro, December 13, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL SICILY MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE COMPANY by the Court was, on the 12th day of December, 1862, presented to the Vice-Warden of the Stannaries by Edward Cooke, William Palmer, Benjamin Helps Stacey, and William Palmer the younger, creditors of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the office of Winslow Jones, Esq., solicitor, Cathedral-yard, Exeter, on Wednesday, the 31st day of December inst., at One o'clock in the afternoon.
Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners, their solicitors, or agents, of their intention to do so, such notice to be forthwith forwarded to the secretary of the Vice-Warden, P. P. Smith, Esq., Truro, Cornwall. Every such contributory or creditor is entitled to a copy of the petition and affidavits verifying the same, from the petitioners or their solicitors, within 24 hours after requiring the same, on payment of the regulated charge per folio.
Affidavits intended to be used at the hearing, in opposition to the said petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 27th day of December inst., and notice thereof must at the same time be given to the petitioners, their solicitors, or agents.
HODGE, HOCKIN, AND MARRACK, of Truro (Solicitors for the petitioners).
GREGORY AND CO., 1, Bedford-row, London (Agents of the said solicitors).
Dated Truro, December 13, 1862.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the RUDDICK CONSOLS MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 12th day of December, 1862, presented to the Vice-Warden of the Stannaries by George Stoughton Arnall and Thomas Hamilton, contributories of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the office of Winslow Jones, Esq., solicitor, Cathedral-yard, Exeter, on Wednesday, the 31st day of December inst., at One o'clock in the afternoon.
Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners, their solicitors, or agents, of their intention to do so, such notice to be forthwith forwarded to the secretary of the Vice-Warden, P. P. Smith, Esq., Truro, Cornwall. Every such contributory or creditor is entitled to a copy of the petition, and affidavits verifying the same, from the petitioners or their solicitors, within 24 hours after requiring the same, on payment of the regulated charge per folio.
Affidavits intended to be used at the hearing, in opposition to the said petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 27th day of December inst., and notice thereof must at the same time be given to the petitioners, their solicitors, or agents.
HODGE, HOCKIN, AND MARRACK, of Truro (Solicitors for the petitioners).
GREGORY AND CO., 1, Bedford-row, London (Agents of the said solicitors).
Dated Truro, December 13, 1862.

MATTHEW BARTON, IRON AND STEEL MERCHANT, having purchased by private treaty a large quantity of COLLIERY and OTHER PLANT, almost of every description, has ON SALE:—
TWO 30 horse power BEAM ENGINES, with or without boilers.
ONE 25 horse ditto ditto ditto
ONE 14 horse power HORIZONTAL ENGINE, with or without boiler.
TWO 12 horse ditto ditto ditto
TWO 8 horse ditto ditto ditto
THREE 6 horse ditto ditto ditto
TWO 4 horse ditto ditto ditto
FIVE 3 horse power VERTICAL ENGINES, with or without boilers.
Several other SECOND-HAND BOILERS ON SALE. An immense stock of pump trees, with clack and bucket pieces, 6 in. to 15 in. bore; brass and iron working barrels, all sizes; 4 large ram pumps; 9 double pumping cranks, various; 5 single ditto; 7 L legs, various; sundry knock-off joints, slide rods, and fork ends, with wing plates; 3 drums, with wrought arms, lag'd for fire-ropes; 14 head gear pulleys, various sizes, for round ropes; 9 ditto for flat ropes; 7 ½ pulleys; 2 cart weighing machines, 5 tons; 1 wagon ditto, 14 tons; a large quantity of wrought-iron (second-hand), pit and railway rails; about 40 tons of cast iron rails; about 10 tons of shafts and crossings; several large second-hand wagon shape boilers, suitable for tanks or cisterns; 4 lifting jacks, 4 to 10 tons; 1 to lift or pull, 50 tons; 4 pile drivers; 20 dobbin carts; large and small 3 and 4 sheaved blocks; 1 strong hydraulic press. All on sale very cheap.
Wigan, December 9, 1862.

RAILWAY PLANT FOR SALE, BY AUCTION, at WHITROPE and SHANKEND on the BORDER UNION RAILWAY, ROXBURGHSHIRE.

On MONDAY, TUESDAY, and WEDNESDAY, January 5th, 6th, and 7th, 1863.
Mr. RITSON having completed his contract upon the Border Union section of the North British Railway.
MR. GEORGE HARDCASTLE is instructed to SELL, BY AUCTION, on MONDAY, January 5th, at WHITROPE:—
Malleable iron skips, gin drums, huts and hut scantling, hardwood centres, hemp and wire ropes, GYNN'S CENTRIFUGAL 6 in. PUMP, CONTRACTORS' RAILS, scrap metal, TWO PORTABLE ENGINES, with 8 and 9 in. cylinders, by Hornsby and Son; TWO HORIZONTAL ENGINES, with 12½ and 18½ in. cylinders; three sets of friction gear, COHNSTON and OTHER BOILERS, MORTAR MILLS, sets of 7½, 9, and 12 in. pumps, fan blasts, large and small weighing machines, beams and scales, malleable iron blocks, HYDRAULIC PRESS, screw jacks, new nails, circular saws, EIGHT FLAT-BOTTOMED STONE BOGIES, FORTY "PEDESTAL" EARTH WAGONS, THIRTY-SEVEN "ROLLER" EARTH WAGONS, EIGHTEEN "FIDDLESTICK" EARTH WAGONS, SIXTEEN "JOINT EARTH WAGONS, and numerous miscellaneous articles of value.

On TUESDAY, January 6th, 1863, at WHITROPE:—
Earth barrows, malleable wagon axles, scrap iron, drills, chains, patent scale, pit tube, large screw stocks, boring rods, new smiths' bellows, drilling, quarry, and stone hammers, miners' picks, punching machines, anvils, vices, and smiths' tools, upwards of ONE HUNDRED SETS of capital TRACE HARNESS, TWENTY-ONE CART SADDLES, with breeching, TWENTY-TWO NEW SCOTCH and OTHER CARTS, long cart, spring cart, FIVE strong TIMBER WAGONS, hay cutters and corn crushers, by Turner, of Ipswich; new oak wagon wood, wooden huts, hut framing, and a great variety of costly and useful articles.

On WEDNESDAY, January 7th, 1863, at SHANKEND:—
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MACHINES FOR CRUSHING ALL KINDS OF DRY QUARTZ AND OTHER
MINERALS TO A POWDER, from 5 cwts. to 2 tons per hour. These machines are
portable and light, and easily kept in repair. Can be supplied either with or without
steam-engine.—For full particulars, apply to HENRY T. BALFOUR, engineer, 16, Adam-
street, Strand, London, W.C.

HALL AND WELLS, PATENTEES AND
MANUFACTURERS OF SUBMARINE TELEGRAPH CABLES, CABLES,
&c.—TELEGRAPH CONDUCTORS INSULATED WITH INDIA RUBBER AT £5 per
mile and upwards, PARTICULARLY ADAPTED FOR MINING PURPOSES. Further
particulars as to price of cores, cables, &c., can be had on application at 60, Alderman-
bury, City, E.C.; and Steam Mills, Mansfield-street, Borough-road, Southwark, S.E.
Copper wire covered with silk, cotton, or any other material, to order.

ASSAYS AND ANALYSES OF EVERY DESCRIPTION
Conducted by JOHN MITCHELL, F.R.S., M.G.A. (late Mitchell and Rickard)
Author of "Manual of Practical Assaying," "Metallurgical Papers," &c.
All communications and samples to be addressed (free) to Mr. MITCHELL, care of Mr.
P. Clay, 29, Great St. Helen's, London, E.C.

TO INVENTORS.—ALL INTENDING PATENTEES should
PROCURE THE PRINTED INFORMATION regarding PATENTS, their COST
and the MODE OF PROCEDURE to be adopted, ISSUED GRATIS by the GENERAL
PATENT COMPANY (LIMITED), 71, FLEET STREET, LONDON.
R. MARSDEN LATHAM, Sec.

TO CAPITALISTS.—MESSRS. LEICESTER AND CO.,
INSPECTORS AND VALUERS OF MINES, &c., MELBOURNE, VICTORIA.
OFFER THEIR SERVICES TO SELECT AND INVEST CAPITAL IN MINING PRO-
PERTIES, for which they charge 2½ per cent.; and they also COLLECT AND TRANS-
MIT THE DIVIDENDS, charging 40 per cent. on their amount. Messrs. LEICESTER and
Co. earnestly call the attention of capitalists to the many opportunities they possess of
investing, to pay from £50 to £150 per cent. per annum. Sums under £50 will be
charged extra. All remittances must be made through our agent, Mr. RICHARD MID-
DLETON, Mining Journal office, 26, Fleet-street, London; or direct through our bankers,
the Union Bank of Australia.

TO ADVENTURERS IN FOREIGN MINES.—MR. HARRY
THOMAS VERRAN, of PLACENTIA, NEWFOUNDLAND, who has had con-
siderable experience (under the tuition of his father, and in connection with many other
experienced Mining Engineers) is ready to UNDERTAKE THE EXAMINATION
and REPORTING upon MINERAL PROPERTIES in Newfoundland, the United States, or
any other country, where his services may prove useful to capitalists. The greatest
confidence may be placed in Mr. VERRAN, who will use his best judgment in giving re-
liable information to those who may repose confidence in him.

LITHOGRAPHIC PLAN DRAWING AND PRINTING.
ANDREW REID, LITHOGRAPHIC PLAN DRAUGHTSMAN, continues to
EXECUTE, in a superior manner, with dispatch, and on moderate terms, EVERY
DESCRIPTION OF MAP AND PLAN WORK.

Having for several years given his attention to plan work, printed in colours, he re-
spectfully refers his friends and the public generally to the numerous plates illustrating
the volumes of the North of England Institute of Mining Engineers' Transactions, also
to the late Mr. Bewick's work on Cleveland Ironstone, as specimens of good colour printing.
40 and 65, Pilgrim-street, and 24, Shakspeare-street, Newcastle-upon-Tyne.

International Exhibition, 1862—Class 1.

JURY AWARD OF HONOURABLE MENTION, given to Ellis Lever,
"for convenience and efficiency" in ventilating mines, "especially in
cases of emergency," with brattice, door-cloth, and flexible tubing, as
exhibited and manufactured by him.

ELLIS LEVER, WEST GORTON WORKS, MANCHESTER,
begs respectfully to inform all owners and managers of collieries, ironstone, lead,
or copper mines, that he is PREPARED TO SUPPLY THE FLEXIBLE TUBING, in any
lengths, and from 6 in. to 24 in. diameter. BRATTICE and DOOR-CLOTH in any
width or length, AIR-PROOF, FIRE-PROOF, or WATER-PROOF. A large stock of
every width constantly ready for immediate dispatch to any part.
ELLIS LEVER, MANCHESTER.

Adopted by the Governments of Great Britain, Spain, Denmark, Russia, Brazil, East
and West Indies.

EASTON'S PATENT BOILER FLUID,
FOR REMOVING AND PREVENTING
INCORUSTATION IN STEAM BOILERS, LAND AND MARINE.
P. S. EASTON AND G. SPRINGFIELD,
Patentees and Sole Manufacturers,
37, 38, and 39, WAPPING WALL, LONDON, E.
Or of their Agents in the principal towns of Great Britain and the Colonies.

PATENT SAFETY FUSE.—THE GREAT EXHIBITION PRIZE
MEDAL WAS AWARDED TO THE MANUFACTURERS OF THE ORIGINAL
SAFETY FUSE, BICKFORD, SMITH DAVEY, and PRYOR who beg to inform Mer-
chants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations,
that, for the purpose of protecting the public in the use of a genuine article, the PATENT
SAFETY FUSE has now a thread wrought into its centre, which, being patent right, in-
fallibly distinguishes it from all imitations, and ensures the continuity of the gunpowder.
This Fuse is protected by a second Patent, is manufactured by greatly improved ma-
chinery, and may be had of any length and size, and adapted to every climate.
Address.—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

DAVEY'S PATENT BLASTING POWDER,
MANUFACTURED BY DAVEY BROTHERS AND CO.,
NANCEKUKE POWDER WORKS, TUCKINGMILL, CORNWALL.

This blasting powder possesses the following advantages over every other in use:—
Its COMBUSTION is SLOWER and MORE PERFECT when confined in the hole,
it is MORE IMPERVIOUS to MOISTURE, PRODUCES LESS SMOKE, is LESS
DANGEROUS, it BURSTS with MUCH ROCK with a CHARGE OCCUPYING THE
SAME or even LESS SPACE, and its WEIGHT being TWENTY-TO TWENTY-FIVE
PER CENT. LESS than ordinary gunpowder, a SAVING OF ONE-FOURTH THE COST
IS EFFECTED.

DAVEY BROTHERS and Co. beg to state that this powder is specially made for blasting,
and from its slow combustion is not adapted for projectiles. They would, therefore, cau-
tion consumers not to be induced by interested parties to put it to a fallacious trial, by
firing a ball from a mortar, which is no test of its explosive force when confined.

CREASE'S PATENT EXCAVATING MACHINERY,
FOR SUPERSEDING THE SLOW AND EXPENSIVE USE OF MANUAL LABOUR
IN SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to
drive through any rock of average hardness at a minimum rate of 1 in. per diem, and
to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an en-
tirely reduced rate of cost, and great saving in cost time as compared with the ordinary
mode of proceeding. Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-
street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth
and extent of ground, speculation in mining will be assimilated to commercial pursuits,
with this unmistakable advantage—that when the ground has been once carefully and
judiciously selected, and operations properly and systematically carried out for its de-
velopment, there would be far less chance of unsatisfactory results than are met with
by merchants and manufacturers in the usual routine of their business. As this im-
portant invention must beneficially interest the landowners, mine proprietors, mer-
chants, and miners, we opine it will meet with immediate adoption.—Mining Journal.

BASTIER'S PATENT CHAIN PUMP,
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY
APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE,
FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects,
armers, and the public in general, to his new pump, the cheapest and most efficient ever
introduced to public notice. The principle of this new pump is simple and effective, and
its action is so arranged that accidental breakage is impossible. It occupies less space
than any other kind of pump in use, does not interfere with the working of the shafts,
and, unlike lightness with a degree of durability almost imperishable. By means of this
hydraulic machine water can be raised economically from wells of any depth; it can be
worked either by steam-engine or any other motive power, by quick or slow motion.
The following statements present some of the results obtained by this hydraulic machine
as daily demonstrated by use:—

1.—It utilizes from 90 to 92 per cent. of the motive power.

2.—Its price and expense of installation is 75 per cent. less than the usual pumps em-
ployed for mining purposes.

3.—It occupies a very small space.

4.—It raises water from any depth with the same facility and economy.

5.—It raises with the water, and without the slightest injury to the apparatus, sand,
mud, wood, stone, and every object of a smaller diameter than its tube.

6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Whal Concord Mine, South Sydenham,
Devon, near Tavistock; and a shipping pump at Woodside Graving Dock Company
(Limited), Birkenhead, near Liverpool.

J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT HIS PATENT PUMP
AT HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will
GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE
OF HIS INVENTION.

OFFICES, 47, WARREN STREET, FITZROY SQUARE,
London, March 21, 1859. Hours from Ten till Four. J. U. BASTIER, C.E.

WASTE NO OIL.
STRONG IRON OIL CISTERNS,
NOT LIABLE TO LEAK, and ECONOMISE SPACE IN THE STORES:—

500 gallons Dia. Height £10 10 0 75 gallons 27 x 42 £3 15 0

400 " 43 x 34 9 9 0 50 " 24 x 36 2 15 0

300 " 37 x 34 7 7 0 40 " 21 x 30 9 6 0

250 " 35 x 29 6 10 0 30 " 21 x 30 1 15 0

200 " 33 x 22 6 0 0 25 " 19 x 30 1 5 0

150 " 30 x 22 5 5 0 20 " 19 x 26 1 2 0

100 " 27 x 25 4 10 0 10 " 15 x 21 0 15 0

3½ gallons 4s. 6d. 3½ gallons 5s. 6d.

WAGON GREASE, £12 to £16 per ton, in 4 and 8 cwt. casks.

TURPENTINE SUBSTITUTE, 3s. per gallon, in 30-gallon casks.

TO IRON AND COAL MASTERS, &c.

IMPROVED BLACK VARNISH,
FOR PREVENTING IRON FROM RUST, AND WOOD FROM DECAY.

A brilliant jet black, superior to paint in appearance, dries in less time, contains pre-
servative qualities of the best description, and is economical in its use: one gallon at 1s.
is equal to 14 lbs. of paint, which costs 4s.

FOR COLLIERY HEAD GEARING, RAILWAY WAGONS, BOILERS, CAMMERS, CANAL BOATS,
&c., it is especially adapted. In casks containing 10, 15, and 20 cwts. each. In quan-
tities of 1 ton and upwards, price £11 per ton.

GLOVER AND CO.,
No. 40, MANESTY LANE, LIVERPOOL.

AUSTRALIA, NEW ZEALAND, AND
BRITISH COLUMBIA.

WHITE STAR EX-ROYAL MAIL CLIPPERS,
SAILING FROM

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VANCOUVER'S ISLAND, every month.

* Passengers holding Victoria passage warrants will be forwarded to Melbourne by
these vessels.

Destination. Register. Burthen. To sail.

ARISE SUN Victoria, Van. 824 1800 Dec. 10.

SOUTHERN EMPIRE Melbourne 1417 3000 Dec. 20.

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
1000	Alberley Edge (Cheshire) [L.]	10 0 0	60	3 1/4	4
4000	Bedford United (copper), Tavistock	2 0 0	4	3 1/4	4
240	Boscon (tin), St. Just	20 10 0	80		
200	Botallack (tin), Cop. St. Just	21 5 0	250		
916	Cargill (silver-lead), Newlyn	15 5 7	43	40 45	
1000	Carn Brea (copper), tin, Illogan	15 0 0	65		
200	Cefn Cwm Brwyno (lead), Cardiganshire	33 0 0	10		
254	Copper Hill (copper), Redruth	48 0 0	80		
10000	Copper Miners of England	25 0 0	25		
30000	Ditto (ditto)	100 0 0	24		
1055	Cradock Moor (copper), St. Cleer	8 0 0	25 1/2		
512	Cresgawrhaw and Penkelt, St. Columb				
617	Cwm Erwin (lead), Cardiganshire [L.]	7 10 0	11		
128	Cwmystwith (lead), Cardiganshire	60 0 0	105		
200	Derwent Mines (sil.-lead), Durham	300 0 0	180		
1024	Devon Gt. Con. (cop.), Tavist. [S.E.]	1 0 0	505	500 505	
128	Dolcoath (copper), tin, Camborne	125 17 6	590		
512	Dyffrynwg (lead), Walshe [S.E.]	29 10 0	52	50 52	
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	39 1/2	44 44 1/2	
128	East Darren (lead), Cardiganshire	33 0 0	45		
128	East Pool (tin), copper, Pool, Illogan	24 0 0	420		
2800	Foxdale (lead) Isle of Man [L.]	25 0 0	35		
5000	Frank Mills (lead), Devon	3 18 6	2		
1000	Great South Tolgus [S.E.], Redruth	0 14 6	7 1/4	7 1/4	
1788	Great Wh. Fortune (tin), Breage	15 0 0	25 1/2	29 1/2 30 1/2	
5008	Great Wh. Yr. (tin), Helston [S.E.]	40 0 0	5 1/2		
10240	Gunn's Lake (Cilhest. Adit)	0 0 0	3 1/2		
1024	Herodasfoot (id.), near Liskeard [S.E.]	8 10 0	45		
1000	Hilberton Mine Company	22 6 3	27 1/2		
400	Isaburo (lead), Cardiganshire, Wales	15 15 0	110		
5000	Marko Valley (copper), Cardon	4 10 6	9 1/2	8 1/2 9 1/2	
1800	Miners Mining Co. [L.], (id.), Wrexham	25 0 0	207		
30000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	19 1/2	19 1/2	
440	Mount Pleasant (lead), Mold	4 0 0	2 1/2		
6000	New Birch Tor and Wilfr. Cons. (tin)	1 6 6	3 1/2		
5938	North Trekerby (copper), St. Agnes	1 9 0	4	3 1/4	
8000	Oreid (lead), Flintshire	0 0 0	1 1/2		
6400	Par Consols (cop.), St. Bizey [S.E.]	1 2 6	5		
200	Parya Mines (copper), Anglesey [L.]	50 0 0			
400	Phenix (copper and tin)		200		
1773	Pilberron (tin), St. Agnes		8		
1121	Providence (tin), Uny Lelant [S.E.]	10 6 7	41	40 42	
1000	Rosewall Hill and Ransom United	2 16 0	3 1/2	3 1/2	
4025	Rosewarne Consols (copper)	3 7 6	3 1/2		
16	Rosewarne (lead)	50 0 0			
512	South Caradon (cop.), St. Cleer [S.E.]	1 5 0	400		
512	South Tolgus (cop.), Redruth, Cornwall	8 0 0	42 1/2	40 42	
5000	South Exmouth (lead), Christow				
498	S. Wh. Frances (cop.), Illogan [S.E.]	18 15 9	97 1/2	90 95	
280	Sparrow Moor (tin, copper), St. Just	31 17 8	30		
940	St. Ives Consols (tin), St. Ives	8 0 0	30		
9500	Tamar Con. (sil.-id.), Beeralston [S.E.]	4 10 0	1 1/2		
6000	Tinctorf (cop., tin), Pool, Illogan [S.E.]	9 0 0	12 1/2	13 18 1/2	
1000	Trumpet Consols (tin), near Helston	11 10 0			
4200	Vigra and Clogau (copper) [L.]	2 15 0	34	31 33	
1024	Wendron Consols (tin), Wendron	11 13 0		11 11 1/2	
6000	West Bassett (copper), Illogan [S.E.]	1 10 0	13		
80	West Burton Hill (lead), York	40 0 0	9		
1024	West Caradon (cop.), Liskeard [S.E.]	5 0 0	31	28 30	
4000	West Fowey Consols (tin and copper)	7 10 0	3 1/2		
1024	West Penrithall (copper)	4 0 0	9		
400	W. Wh. Senar (cop.), Camborne [S.E.]	47 10 0	292 1/2	297 1/2	
512	Wheat Bassett (copper), Illogan [S.E.]	5 2 6	85	80 85	
512	Wheat Buller (cop.), Redruth [S.E.]	5 0 0	65		
2900	Wh. Clifford Amalgamated (cop.), Gwennap	30 0 0	22	20 22	
128	Wh. Friends (tin), copper, Devon	80 0 0			
1024	Wh. Gwylfa (tin), Penryn	2 0 0	30	31 33	
1024	Wh. Harriet (tin), St. Just	9 13 8			
4000	Wh. Ludcott and Wrey (lead), St. Ives	2 10 0	10 1/2	9 1/2 9 1/2	
896	Wh. Margaret (tin), Uny Lel. [S.E.]	9 17 6	40	40 42	
100	Wh. Mary (tin), Lelant	25 0 0	440		
1024	Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 0	15	14 15	
80	Wh. Ows (tin), St. Just, Cornwall	70 0 0	300		
128	Wh. Penryn (tin), Lantivel	2 0 0	30		
396	Wh. Penryn Consols (copper), Camborne	68 10 0	167 1/2	180 185	
1040	Wh. Trevalny (sil.-id.), Liskeard [S.E.]	5 17 0	16 1/2		
6000	Wicklow (copper) [L.], Wicklow	8 0 0	38 1/2		

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

700	Aberdovey (silver-lead), Merioneth	1 10 0	80		
4848	Alfred Consols (cop.), Phillack [S.E.]	3 15 11	3 1/2		
256	Condurow (cop., tin), Camborne	35 0 0	105	32 1/2 95	
2450	Cook's Kitchen (copper), Illogan	17 9 0	30	31 32	
6078	Devon and Cornwall (copper)	5 18 0	3 1/2		
478	Ding Dong (tin), Gwennap	40 13 6	4 1/2		
18600	Draha Killy (tin), copper, Calstock	2 10 0	23 1/2	1 1	
2048	East Wheal Lovell (tin), Wendron	2 13 6			
4940	Fowey Consols (copper), Tywardreath	4 0 0	5		
119	Great Work (tin), Gernoe	100 0 0	110		
8000	Kelly Bray (lead, copper), Callington	4 15 6	105	7 1/2	
20	Laxey Mining Company, Isle of Man	100 0 0	1200		
160	Levant (copper), tin, St. Just	2 10 0	95		
170	Newportward Mines (tin), Calstock	2 0 0	30		
6000	North Downs (copper), Redruth	2 3 4	2 1/2	2 1/2 2 1/2	
2000	Portlaid Con. (cop.), Whitchurch [S.E.]	0 17 0	12 1/2	12 1/2	
574	Trillick (copper), Marazion	0 15 2	2 1/2		
252	West Damsel (copper), Gwennap	38 10 0	63		
512	Wheat Jane (silver-lead), Kea	3 10 0	18		
1024	Wheat Killy (tin), Uny Lelant [S.E.]	2 0 0	7 1/2	8	
4395	Wheat Killy (tin), St. Agnes	4 19 6	4 1/2		

FOREIGN MINES.

2444	Burra Burra (cop.), South Australia	5 0 0	100		
6000	Central American (silver) [L.]	5 0 0	13 1/2		
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	21		
10000	Copiapu Mining Company, Chile [S.E.]	10 0 0			
16000	East Indian Coal, Calcutta [S.E.]	10 0 0			
70000	English and Australian [S.E.]	10 0 0	2 1/2		
20000	Fortuna (lead), Spain [L.]	2 0 0	4 1/2	3 1/2 4 1/2	
28000	Gen. Mining Assoc., Nova Scotia [S.E.]	130 0 0	22		
18000	Kapunda Mining Co., Australia [S.E.]	1 0 0	1 1/2	1 1/2 1 1/2	
16000	Linares (id.), Potosi, Bolivia [S.E.]	1 0 0	8		
10000	Lusitania (of Portugal) [S.E.]	2 0 0	1 1/2		
08815	Marquise and New Granada [S.E.]	1 0 0	1 1/2	1 1/2 1 1/2	
100000	Port Phillip (gold), Clunes [S.E.]	1 0 0	1 1/2	1 1/2 1 1/2	
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	60	52 54	
43714	Unit. Mexican (sil.), Mexico [S.E.]	25 0 0	5 1/2	4 1/2 5 1/2	
20000	West Canada Mining Company [L.]	1 0 0	1 1/2		

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quenangen (tin), (cop.) [L.]	4 10 0	3		
10000	Gt. Barrier Land, Min. Ac. N. Ze. [L.]	4 10 0	3 1/2		
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	2		

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
20000	Australian (copper), South Australia [S.E.]	7 6 6	1		Sept. 1858
20000	Bear's (tin) [L.]	0 10 0	1		Oct. 1862
75000	Bon Accord, South Australia (copper) [L.]	1 0 0			Oct. 1862
20000	Capula (silver), Mexico [L.]	0 10 0	1 1/2		Jan. 1862
17000	Central Italian (copper) [7000 £ paid]	0 6 0			Jan. 1859
10000	Clarendon Consols (copper), Jamaica [S.E.]	1 2 6	3 1/2		July 1862
100000	Don Pedro North Del Rey (gold), Brazil [L.]	10 0 0	8 1/2		Fully paid.
75000	Dun Mountain (copper), New Zealand [L.]	1 0 0	1 1/2		Aug. 1862
25000	East del Rey, Brazil [L.]	1 0 0	2 1/2	1 1/2 2	Fully paid.
30000	East Kongberg Native Silver Mining Co. of Norway [L.]	1 7 6	3 1/2		Mar. 1862
18000	Elbe Colliery Company [L.]	1 0 0	3 1/2		Fully paid.
10000	Ellerslie and Bardsley, Jamaica	0 18 0	1 1/2		July 1859
10000	English and Canadian Mining Company [L.]	5 0 0			Fully paid.
40000	Fortune (copper), South Australia [L.]	2 0 0			Fully paid.
24000	Great Northern (copper), South Australia [L.]	2 10 0	1 1/2		June 1862
4000	Hindostan (copper), Bengal [L.]	1 10 0	1 1/2		June 1862
4000	Howe Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0			Fully paid.
50000	Imperial Thessalian (lead, sil.), Thessaly [L.]	0 10 0	3 1/2		June 1860
10000	Karibita Colliery Company [L.]	1 0 0	1 1/2		Fully paid.
10000	Lagunazo (sulphur, copper), Portugal [L.]	1 0 0	3 1/2		Fully paid.
100000	Monte Anuro (copper), Brazil [L.]	2 0 0	2 1/2	2	Fully paid.
2000	New Barro Barro (Australia) [L.]	2 0 0	1 1/2		Aug. 1862
60000	New Granada (gold), South America [S.E.]	2 0 0	1 1/2		Fully paid.
10000	New Grand Duchy of Baden (silver-lead), near Freiberg	1 0 0	1 1/2		Nov. 1862
80000	N. Rhine Copper of South Australia [L.]	0 17 6	1 1/2		Nov. 1862
60000	Nova Scotia (lead and gold) [L.]	1 0 0	1 1/2	1 1/2 1 1/2	Nov. 1862
15000	Pachona Silver Mining Company, Mexico [L.]	0 15 0			April 1862
17000	Quadrado (copper), Venezuela [L.]	1 10 0	1 1/2		July 1862
60000	Santa Barbara (copper), Brazil [L.]	0 10 0	1 1/2	1 1/2 1 1/2	Mar. 1862
20000	Scottish Australian Mining Company [L.]	0 10 0	1 1/2	1 1/2 1 1/2	Mar. 1862
15000	South Europe Mining Company, Spain [L.]	2 0 0	1 1/2	1 1/2 1 1/2	May 1860
60000	St. John's United (copper, lead), Newfoundland [L.]	1 0 0			Fully paid.
10000	Teplitz Colliery Co. [L.]	2 0 0	3 1/2		Fully paid.
10000	Vancouver (coal) [L.]	5 0 0		4 1/2 5	
45000	Western Africa (copper), Italy [L.]	30,000 Pref. Shares, 150,000 £ pd.	1 1/2		
13000	Wheat Eilen, South Australia [L.]	110 0 0			Oct. 1859
34525	Wheat Jamaica (copper)	5 0 0			Fully paid.
60000	Worthing (copper), South Australia [L.]	1 0 0			Fully paid.
40000	Yuanamutana (copper), South Australia [L.]	3 0 0	3 1/2		Fully paid.

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
600	Aberffraw	0 10 0	6		
10000	Angarrack (copper), Phillack	1 6 1	1 1/2		June 1859
35000	Atlas Min. and Smet. [L.]	0 10 0	6		Nov. 1862
6000	Bagtor [L.]	1 0 0	2 1/2		Oct. 1862
4224	Ballaewidden (tin), St. Just	14 8 7	12		Mar. 1862
10000	Bampfylde (copper), Devon	1 0 0	1 1/2		Aug. 1860
30000	Barnmouth Cons. (gold) [L.]	0 5 0	3 1/2		Aug. 1862
4000	Bedford Consols (copper)	2 0 0	1 1/2		Nov. 1862
2000	Berehaven (copper), Ireland	1 0 0	1 1/2		
200	Billins (lead) [L.]	25 0 0	18		Aug. 1862
1248	Boscawell (tin, cop.), St. Just	6 5 0	10 1/2		Dec. 1860
2280	Boscawell (tin, cop.), St. Austell	7 10 0	4		Sept. 1862
1800	Bosorne & Bollowell, St. Just	6 5 0	10 1/2		Dec. 1860
6000	Britannia (tin, cop.), St. Ives [L.]	1 0 0	1 1/2		Aug. 1862
4000	Brookwood (cop.), Ashburton	1 12 6	3 1/2		
6000	Brontford (id.), Cardigan [L.]	2 7 6	7		June 1862
112	Bron-Hanlog (id.), Denbighshire	20 0 0	30		No call.
5120	Brynabur (id.), Cardigan [L.]	3 0 0	3		Nov. 1862
300	Bryn Gwlog (lead), Flint	6 0 0	25 1/2		April 1862
1000	Bryntall, Llanidloes, Montgo.	7 6 6			Oct. 1862
6000	Bryntall and Bassett Unit. (cop.)	3 16 6	3 1/2		Sept. 1862
6280	Buller and Bassett Unit. (cop.)	1 3 0	4		April 1862
1200	Burra Barra (cop.), Keweenaw	5 0 0	7		June 1862
2200	Burra Barra (lead, calamine) [L.]	5 0 0	7		Nov. 1862
915	Calvaddan, Wendron	22 17 0	7		Nov. 1862
1000	Camborne Consols (copper)	17 10 0	8		Oct. 1862
4600	Camborne Van & Wh. Francis	8 14 4	2 1/2		Oct. 1862
75000	Cambrian Consols (id.) [L.]	1 0 0	1 1/2	1 1/2 1 1/2	Aug. 1862
614	Caradon Cons. (cop.), St. Cleer	25 9 6	15		Dec. 1862
4048	Caradon Hill (copper)	2 1 6			July 1862
4000	Caradon United (copper)	0 10 0	2		Sept. 1862
10000	Cardigan Consols				July 186